Dist I Supply p 13

APRIL, 1943

fuel oil & oil heat

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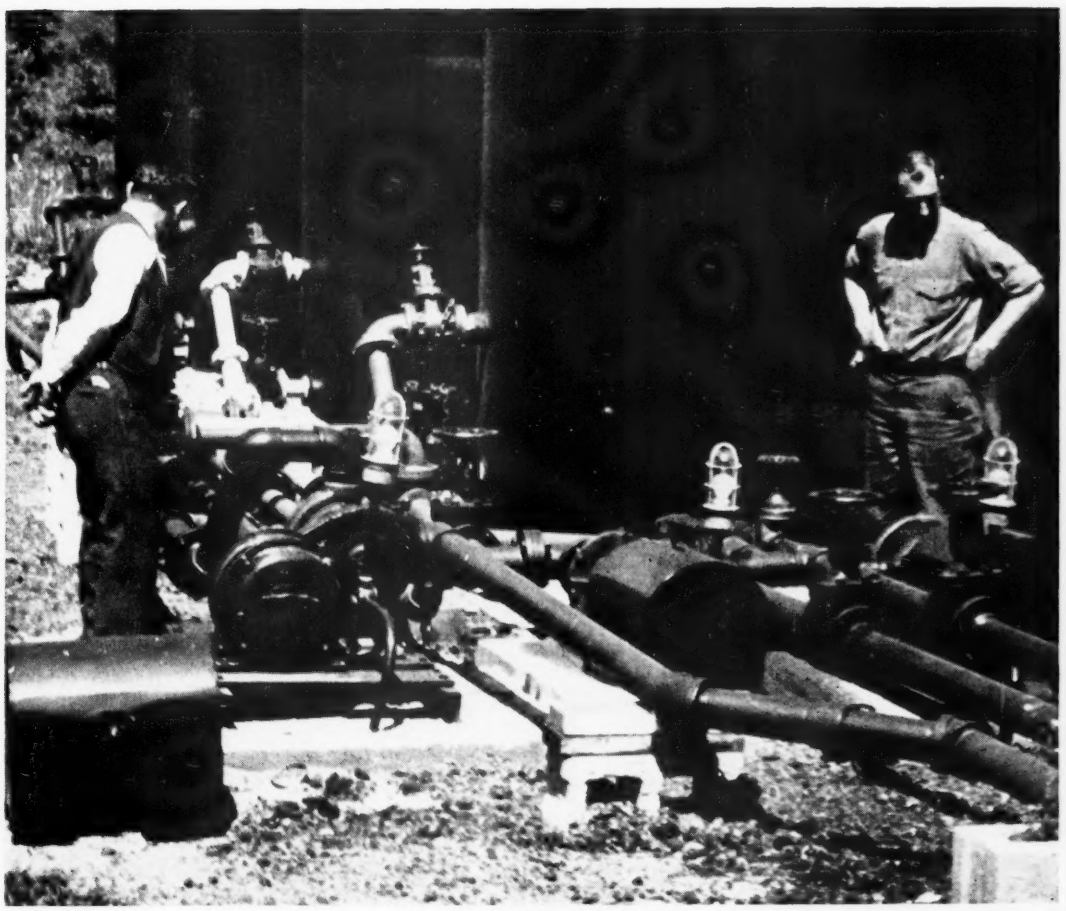

$3.00 a Year, 25 Cents a Copy

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Pays to use tank truck

Metered Control

in Army, Navy—or Industry

Heil-built lubricating oil service truck utilized by the U. S. Army Air Corps. Furnished with Red Seal meters.

SERVICE trucks at Army and Navy airfields rely upon their meters for the accuracy that is essential to safe and efficient plane-fueling. Fill of the plane's gasoline tanks must be adjusted to the distance to be flown in order to allow for maximum "payload." And the tank truck meter does the job—quickly, automatically, by precision measurement.

The same metered control is important to oil companies' fuel-oil or gasoline tank truck deliveries. Your customer, especially under rationing, today is very much concerned as to the *accurate* measurement of the "drop" that goes into his tank!

The speed, accuracy and flexibility of Red Seal metered deliveries are confirmed by thousands of actual performance records supplied by oil companies—and by the money-savings reported by these Red Seal users. Such investments in metered control have been repaid many times over, during peacetime and during the war.

Gasoline and diesel oil tank, built for Navy Yard use by The Heil Company. Red Seal Print-O-Meters provide a printed record of gallonage dispensed each time.

NEPTUNE RED SEAL METERS

NEPTUNE METER COMPANY
Main Office: 50 West 50th Street, New York. Branch Offices at Atlanta, Boston, Chicago, Dallas, Denver, Kansas City (Mo.), Los Angeles, Louisville, Philadelphia, Portland (Ore.), San Francisco, and Long Branch, Ont., Canada.

GASOLINE DISPENSING PUMPS · METERS FOR: BARGE AND TANK CAR UNLOADINGS STORAGE TRANSFERS LOADING RACKS • DELIVERY TANK TRUCKS

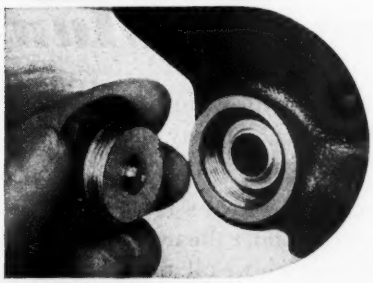
1984

Sundstrand

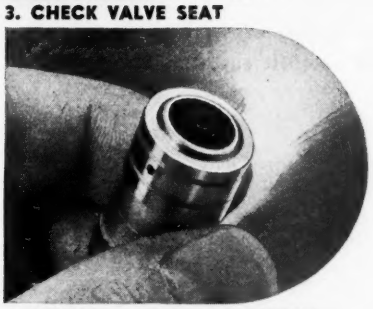
SERVICE SUGGESTIONS

1. TIGHTEN SUCTION LINE COUPLING, AND ALL COUPLINGS BACK TO TANK

2. TIGHTEN PLUG IN UNUSED SUCTION LINE OPENING



3. CHECK VALVE SEAT



4. INSPECT AND CLEAN PISTON

*3. Correct Poor Cut-off

In these days of fuel conservation, the most economical operation of oil burners is important. Poor cut-off . . . a flame which persists after the burner shuts off . . . is wasteful and may lead to worse troubles. It may be caused by air in the suction line, by an air pocket between the valve and the nozzle, by a damaged valve seat, or by dirt on the valve seat. If the trouble is poor cut-off, check these causes and keep Sundstrand Fuel Units operating at full efficiency.

CROSS-SECTION OF S-1 FUEL UNIT

This picture shows the location of a plug which may be loosened to bleed any trapped air from the system. An air pocket in the nozzle line may be absorbed by starting and stopping the burner 6 or 8 times. Air may leak into the suction line at the points shown being tightened in pictures 1 and 2 above, and at any coupling between tank and pump. The valve seat and piston can be removed as shown in ad No. 2 of this series. Write for Service Bulletin 102 and for Bulletins 106 and 107 showing mounting adaptors and foot mountings to replace old and worn-out fuel units with new Sundstrand Fuel Units.

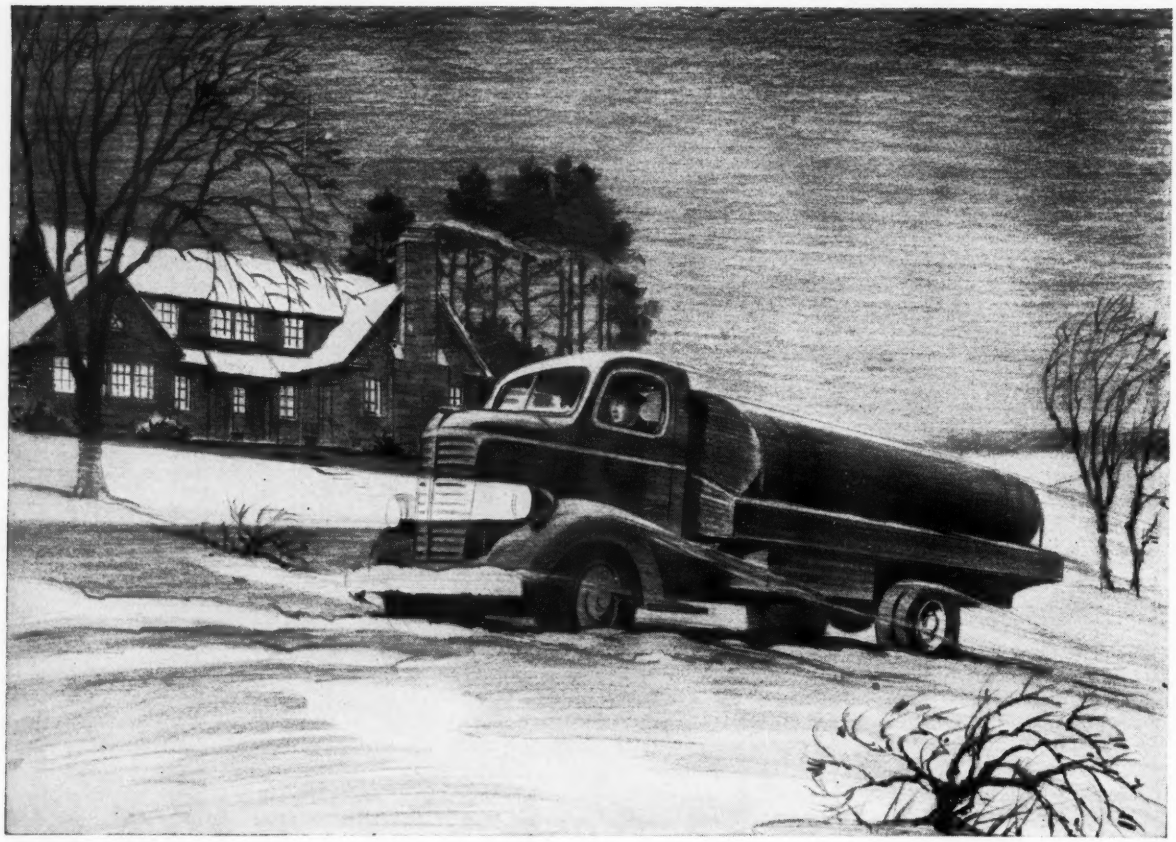
LOOSEN PLUG TO BLEED AIR OUT

***To follow: 4. Eliminate Noise.**

SUNDSTRAND PUMP DIVISION

SUNDSTRAND MACHINE TOOL CO. ROCKFORD ILLINOIS U.S.A.

2556 ELEVENTH ST.
ROCKFORD, ILLINOIS



"HATS OFF" *to the Fuel Oil Man*

The producer who is turning out oil in ever-increasing quantities for our war machine, our factories, and our homes—

The distributor who has kept a service organization together in the face of manpower shortage, who has kept oil flowing to our homes in spite of reduced supplies and restrictions on gasoline and rubber—

The truck driver who during this last grim winter battled his way through blizzards, snowdrifts, and blustery cold by day and often by night to bring us our rations.

These men are rendering a great service to all of us and to the country under the most trying conditions—a service which we all appreciate.

When peace comes again, we wish these men all prosperity and smooth sailing. They deserve it.

And, when peace comes again, Detroit Lubricator Company will be ready with new developments which will contribute much to the expansion of oil heating and to the health and comfort of the nation

Oil is Ammunition
USE IT WISELY!

DETROIT LUBRICATOR COMPANY

WATCH -DL

General Offices: DETROIT, MICHIGAN

Division of AMERICAN Radiator and "Standard" Sanitary Corporation

Canadian Representatives—Railway and Engineering Specialties Limited, Montreal, Toronto, Winnipeg

VOL. 1 NO. 12
APRIL
1943

Names in the news

John G. Neukom, chief of the fueloil rationing branch, OPA, resigned, effective March 27, to return to his civilian post with McKinsey, Kearney & Co., Chicago management engineering firm. He left Chicago in March 1942 on a four months leave of absence to organize the operations section of gasoline rationing, later got several extensions to help on fueloil and see it through its first rationed winter. Neukom's successor as branch chief is *Laurence C. Vass* of Des Moines, who also came to OPA in March 1942 as executive officer of the price department. Prior to that he was for seven years chief of the investment banking section and of the market statistics section of the Securities and Exchange Commission. Neukom will continue to be available to OPA in an advisory capacity.

E. J. Doucet is the new general sales manager of Detroit Lubricator Co., Detroit. Starting with the company 26 years ago, Doucet was formerly Western manager of oilburner equipment sales, sales manager of the oilburner equipment division at Detroit and recently sales assistant to the president.

Kenneth Darling, formerly New York division manager for fueloils of Socony-Vacuum Oil Co., has been appointed chief of the fueloil section of the Petroleum Administration for War, Washington. *Ned F. Foulds,* former acting chief, is now assistant in charge of industrial fueloils.

Joy Stoker, formerly head of the Stoker Air Conditioning Co., Dallas, has joined Airtemp Div., Chrysler Corp., Dayton, as service representative, as announced by Ken Crapeau, Airtemp service manager.

fueloil & oil heat

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VOLUME I, NUMBER 12 OF FUELOIL & OIL HEAT, PUBLISHED MONTHLY BY HEATING PUBLISHERS, INC., 232 MADISON AVE., NEW YORK, N. Y., BY CONTRACT WITH FOWLER-BECKER PUBLISHING COMPANY, OWNER OF FUELOIL JOURNAL (VOL. XXI, NO. 10), AND HEATING JOURNALS, INC., OWNER OF AIRCONDITIONING & OIL HEAT (VOL. XVI, NO. 4), APR., '43.

HEATING PUBLISHERS, INC., 232 Madison Ave., New York
Lexington 2-4566

A. E. COBURN, *Editor* — ROBERT GRAY, *Business Manager* — A. G. WINKLER, *Advertising Manager*

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SUBSCRIPTIONS
Yearly: $3
Canadian: $4.35
single copy: this issue 25¢

Editorial leaks

Those who have access to figures on oil supply and demand are frankly puzzled by the cloud of gloom that hangs over every statement of Administrator Ickes and the men of his organization. The prospect for the future has a comfortable rosy glow to the industry, but the same set of figures in the hands of PAW apparently look dark and forbidding, for they bring forth wails of alarm and threats of terrible consequences if homeowners do not rush out and buy conversion grates.

There is no shortage of oil in the Mid-West, and present figures on supply show a probable surplus over rationed demand in the East for the rest of this year. Why then, oil men are asking, is all the pressure being exerted to drive owners of oilheated homes to the trouble and expense of converting to coal?

Cynics suggest that all the pressure for conversion is a grandstand play to butter the coal industry, and show the unions and the operators that the administration is friendly, if not actively trying to build their market for them. These caloused individuals remind you that next year is an election year.

Intelligent coal dealers have a more realistic view of conversion. They now have all the retail coal business they can supply comfortably, and if there is any concerted movement toward conversion they say they will not be able to supply the demand. Such a condition, they reason, will bring coal rationing. Many of the coal dealers also sell oil, and have had experience with rationing. Others have seen fuel rationing in operation, and have no desire to try it with coal.

It is easier to understand the motives of manufacturers of coalburning equipment and their fellow-travelers in government agencies. They like a healthy oil-shortage scare for obvious and tangible reasons, and particularly enjoy wrapping their sales story in the American flag, and singing it to the tune of the Star Spangled Banner.

The oilheating industry does not ask that it be allowed to sell oilburners in volume during the war period. If its motives were commercial it would be actively trying to convert as many installations as possible, not only for the immediate work such a campaign would create, but for the large replacement market it would build for the post-war period. The industry is interested in serving to the best of its ability those customers who have given it life in the past.

Until there is evidence of an oil scarcity instead of a surplus, oilheating men will continue to their present attitude. If this is commercialism our accusers, who want a volume of home conversions, will have to make the best of it.

◈

What appears to be a high grade of double-talk is coming out of Washington on oil supplies and reserves. PAW first announced that 300,000,000 barrels less oil was discovered in new fields last year than was produced, and followed through with the information that "during the past few years, the rate of production has exceeded the rate of discovery of new oil fields."

This will sound startling to the uninitiated, and obviously is meant to jar the public into believing in oil scarcity. Total oil added to proven reserves last year was nearly 500,000,000 barrels more than the oil produced, though the amount discovered in new fields was less than that produced. The difference, as has been the case in recent years, is in the extensions of existing fields, and in the oil discovered at deeper levels. It is all oil, and all recoverable.

Ralph Davies, Deputy Administrator, explains, "We are not concerned with the estimates of reserves made up largely of revisions. Our reserves are sufficient; it is our daily productive capacity that may fail."

This will sound peculiar to those in the petroleum industry who are complaining about proration, and the short allotments that are being made to their states and fields. The chief problem at present is to keep the oil in the ground, not to get it out. Any time there is need for more daily production the oil-producing states will be glad to supply it.

Discovery of new oil fields is most desirable and necessary. Wildcatting is the one way to discover new fields, but these new fields add little to the reserves. Estimates always are on the conservative side until the fields have been thoroughly explored and tested, so there is little hope that discoveries in new fields are going to exceed production for the immediate future.

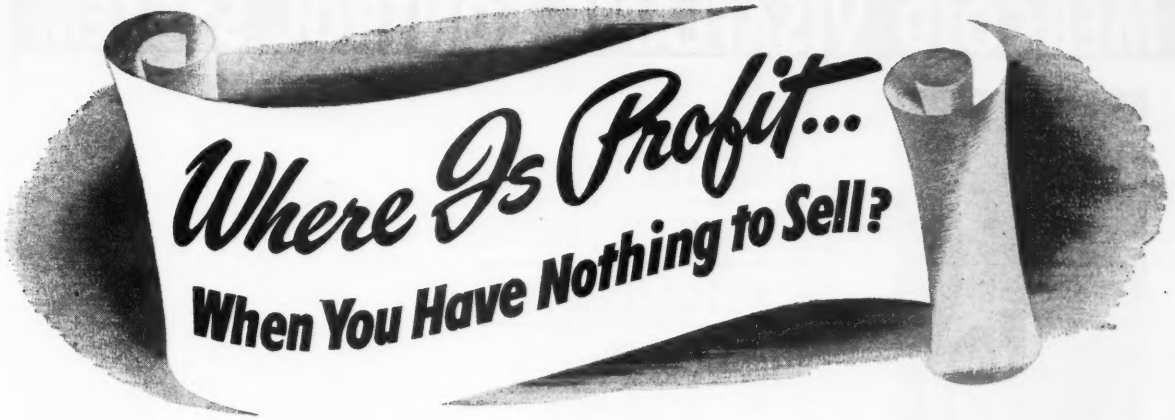
PAW is anxious to stimulate wildcatting. Administrator Ickes wants at least 4,500 wildcat wells this year, and we hope he gets them. Oil companies want a 25¢-a-barrel rise in the price of crude on the claim that this will help to promote wildcatting. We don't know which of these desires is the chicken, and which the egg, but it is safe to bet a hat that the two-bit crude rise would stop much of the howling and breast-beating about the possible scarcity of oil. Present statements appear to be beamed to sell an idea, not to give information.

◈

In more prosperous days it was the custom for many manufacturers to try to "protect" their franchised oilburner dealers by refusing service manuals and other of its literature and information to outsiders. This attitude may have been justified, or not; we are not interested in trying to debate past issues. There is need now for all the first-hand, authentic data that dealers can get on the care and maintenance of all makes of oilburners. Service manuals should be made available to those competent dealers who want them.

Any intelligent dealer or service man can learn to service any make of burner by the old method of cut-and-try. In these days there is less time for such study and self-education in the field. Dealers called upon to service unfamiliar makes and types of equipment should be allowed to have such information as they need. They are going to get it anyway, and the sooner it is made available, the better for the customer, the dealer and the manufacturer.

At least one manufacturer has changed company policy, and issued a notable book on the maintenance of its equipment. Other manufacturers should make their manuals on past models available, if not compile a new manual on the equipment. Burners that cannot be easily repaired by competent local servicemen are a poor advertisement to users and their neighbors.



Profit lies in many sources. Today it takes a long view to see profit when you no longer have oil burners to sell; yet that is the view you are taking as you continue to service existing oil burners, maintaining them at highest operating efficiency. For you are building a background for profit in the future.

And that is the long view of profit that Webster Electric Company is taking by a continuing policy to serve you. Just as in pre-war days we backed you to the limit with advertising and merchandising plans, so are we backing you now through helping you to provide for your customers the services they so urgently need. Webster Electric charts, data sheets and catalogs are guiding you well now. And Webster Electric Service Stations are strategically located throughout the country, ready to supply you with the replacement parts, fuel units and ignition transformers that will keep your customers' oil burners operating to best advantage for the duration.

And it is to the interest of Webster Electric to help you now in preserving your market for the day when you will again be selling oil burners to those customers. For then our ability to produce the finest possible fuel units and ignition transformers and to advertise and merchandise them effectively, together with your proven sales ability, will be the source of great profit—for you and for us.

WEBSTER ELECTRIC COMPANY, Racine, Wisconsin, U. S. A., Established 1909. Export Dept.: 100 Varick St., New York City. Cable Address: "ARLAB" New York City.

WEBSTER ELECTRIC SERVICE STATIONS AND SALES REPRESENTATIVES

Ignition Transformers, Fuel Units, and Parts

California, Los Angeles	Garland-Affolter Engr. Corporation	124 W. 4th Street	Sales Representative
California, San Francisco	Garland-Affolter Engr. Corporation	Rialto Building	Sales Representative
Connecticut, West Hartford	Bell Pump Service Company	100 Park Road	Service Station
Illinois, Chicago	Braun Bros. Heating Supply Company	3146 W. Chicago Avenue	Service Station
Illinois, Winnetka	Braun Bros. Heating Supply Company	812 Oak Street	Service Station
Iowa, Des Moines	Delavan Engineering Company	414—12th Street	Sales Representative
Maryland, Baltimore	R. E. Michel Company	1011 Greenmount Avenue	Service Station
Massachusetts, Cambridge	Cronin Supply Company	60 Broadway	Service Station
Massachusetts, Malden	E. L. Kimball Company	25 Lynde Street	Service Station
Massachusetts, Waltham	Cronin Supply Company	157 High Street	Service Station
Massachusetts, Wollaston	W. S. Plummer	109 Lincoln Avenue	Service Station
Michigan, Detroit	Wm. G. Boales Company	6429 Hamilton Avenue	Service Station
Minnesota, St. Paul	Thermal Company, Inc.	2448 University Avenue	Service Station
Missouri, St. Louis	Brass & Copper Sales Company	2817 Laclede Avenue	Service Station
New Jersey, Elizabeth	Certified Fuel Unit Service Company	600 Spring Street	Service Station
New York, Albany	Certified Fuel Unit Service Company	1018 Central Avenue	Service Station
New York, Brooklyn	Eveready Specialties Company	1724 Flatbush Avenue	Service Station
New York, Brooklyn	The Capson Company	106 Rogers Avenue	Service Station
New York, Jamaica	Sid Harvey, Incorporated	138-76 Queen Boulevard	Service Station
New York, Valley Stream	Sid Harvey, Incorporated	104 E. Mineola Avenue	Service Station
Oregon, Portland	Garland-Affolter Engr. Corporation	1233 N. W. 12th Avenue	Sales Representative
Pennsylvania, Philadelphia	Certified Fuel Unit Service Company	3412-14 W. Allegheny Ave.	Service Station
Rhode Island, Providence	Providence Plumbing Supply Company	47 Pine Street	Service Station
Washington, Seattle	Garland-Affolter Engr. Corporation	532 First Avenue South	Sales Representative

WEBSTER ELECTRIC

"Where Quality is a Responsibility and Fair Dealing an Obligation"

fueloil & oil heat

MERCOID VISAFLAME CONTROL SYSTEM

Listed as Standard by Underwriters' Lab., Inc.

IT USES THE LIGHT OF THE FLAME AS A MEANS OF ACTUATING THE CONTROL SYSTEM

FOR DOMESTIC AND INDUSTRIAL OIL BURNERS

The Visaflame Control System for direct burner mounting is a step ahead in oil burner controls. It fits in with modern heating equipment design, where a more compact unit and positive control efficiency is desired.

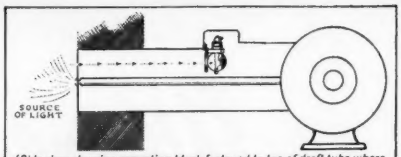
Now is the time to lay plans for postwar production. Our engineering staff will cooperate with you in the adaptation of the Visaflame System. Take advantage of this opportunity. You are not taking any chances with something untried in the field of practical experience. All such provisions have been amply made, covering a period of more than five years, involving many installations under various field conditions.

Its background gives you every assurance of making a wise choice in the selection of the Visaflame Control System.

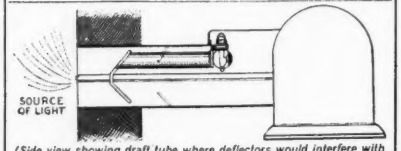
Here are some of the advantages:

1. Low cost integral burner and control assembly.
2. Greatly simplified field installation.
3. Complete accessibility after installation.
4. Efficient operation regardless of fluctuating stack temperatures.
5. Solution of problem of low or slow changing stack temperatures, characteristic of many current-day high efficiency furnace and boiler designs.
6. Adaptability to high low flame operation.
7. Protection against ignition power and flame failure as well as the hazard of low line voltage.
8. Mercoid Mercury Contacts throughout the circuit.

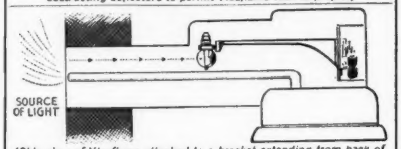
Further information sent upon request



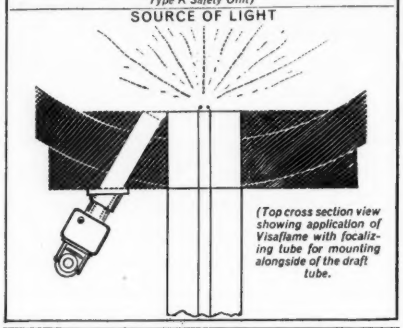
(Side view showing mounting block fastened to top of draft tube where necessary provisions are provided in the height of the draft tube at a point of mounting)



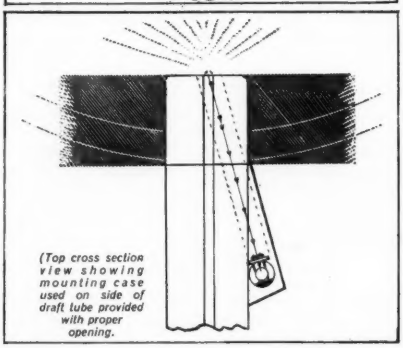
(Side view showing draft tube where deflectors would interfere with the direct light from the flame. In such cases, a hole is cut through the obstructing deflectors to permit Visaflame tube to project)



(Side view of Visaflame attached to a bracket extending from back of Type K Safety Unit)



(Top cross section view showing application of Visaflame with focalizing tube for mounting alongside of the draft tube.



(Top cross section view showing mounting case used on side of draft tube provided with proper opening.

The adaptation of the Visaflame is flexible in its application. The above illustrations show a few applications meeting various construction requirements.

Type L-41 Visaflame assembly complete with tube, glass cover and terminal outlet box.

THE MERCOID CORPORATION, 4213 BELMONT AVENUE, CHICAGO, ILLINOIS

SKILL TO *Design* FACILITIES TO *Produce*

For its more than twenty pre-war years, Williams Oil-O-Matic design, construction and performance won undisputed world leadership of the oil heating industry. No other oil burner even approached Oil-O-Matic in number of exclusive, patented features or number of installations.

Today, this ability to Design and Facilities to Produce are working for Victory! Oil-O-Matic's past experience, coupled with War's know-how are going to mean even finer Williams Oil-O-Matic products tomorrow.

★ ★ ★

Today, the money that would ordinarily be spent for home appliances is going into billions of dollars worth of War Bonds. Today, the materials and precision building that would ordinarily go into Williams Oil-O-Matic products are going into battle-winning war equipment! Tomorrow, however, war-time experience and War Bond dollars will be converted into the world's finest, most modern automatic heating in tens of thousands of American homes.

WILLIAMS
OIL-O-MATIC
HEATING

ARMY E NAVY

Precision-production "know-how" and experience. Proved in Peace—Proved in War! Oil-O-Matic's Skill to Design and Facilities to Produce have won the coveted Army-Navy "E."

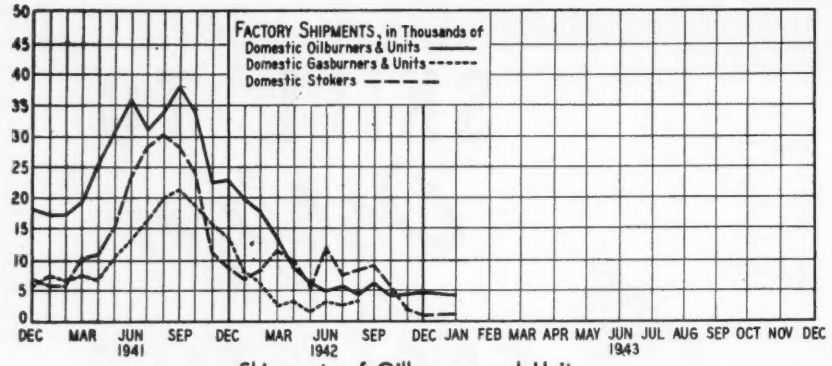
★ ★ ★ ★ ★ ★ ★ ★ ★ ★

BUY WAR SAVINGS STAMPS & BONDS

THE BONDS YOU BUY TODAY ARE YOUR GUARANTEE OF A *Better Tomorrow!*

WILLIAMS OIL-O-MATIC HEATING CORPORATION
BLOOMINGTON, ILLINOIS

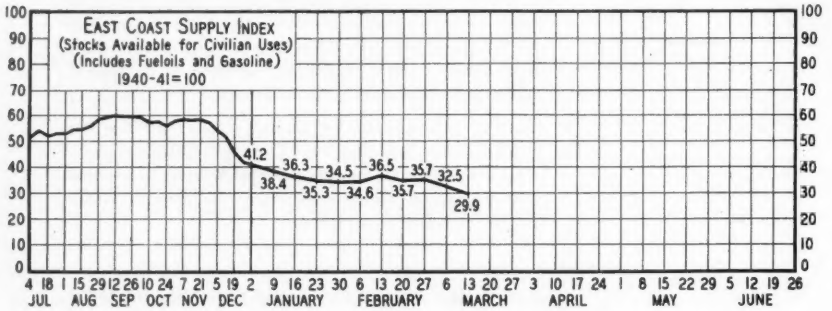
fueloil & oil heat


FACTORY SHIPMENTS, in Thousands of
Domestic Oilburners & Units
Domestic Gasburners & Units
Domestic Stokers
DEC MAR JUN SEP DEC MAR JUN SEP DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
1941 1942 1943

Shipments of Oilburners and Units

Adjusted to include manufacturers other than the 137 reporting to Census Bureau, FUELOIL & OIL HEAT's estimates of shipments are:

	JANUARY			TWELVE MONTHS		
	1943	1942	Percent Change	1942	1941	Percent Change
Conversion	2,300	16,259	—85.9	69,337	250,727	—72.2
Boiler units	653	1,027	—36.5	9,961	33,474	—70.3
Furnace units	1,230	2,199	—44.0	19,756	47,891	—58.8
All domestic	4,183	19,485	—78.7	99,124	332,092	—70.3
Commercial	4,153	4,179	— 0.6	60,490	37,482	+38.1
Total	8,336	23,664	—64.9	159,994	370,572	—56.8



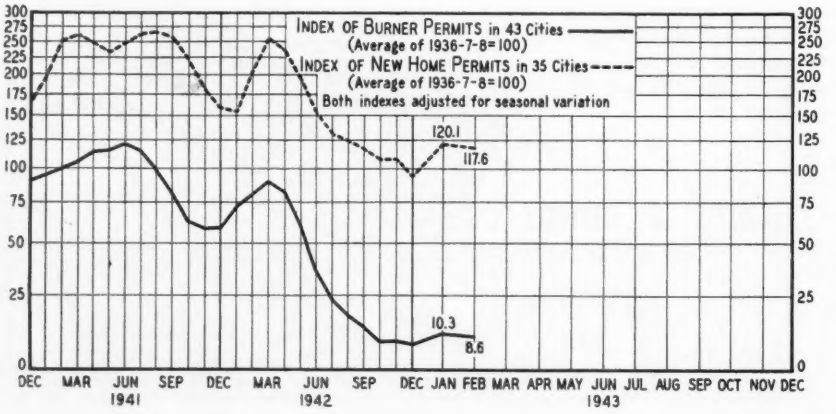
February Minimum Retail Prices: Key Dealers

	CONVERSION BURNERS		BOILER-BURNERS		FURNACE BURNERS	
	Top price*	Low price	Top price*	Low price	Top price*	Low price
Highest	$345	$185	$645	$396	$715	$375
Lowest	200	165	425	295	425	328
Feb. aver.	263	173	499	344	496	348
Jan. aver.	263	179	493	369	509	363

*Top price key dealers for conversion burners are those whose minimum retail prices are $200 or more; for boiler-burner and furnace-burner units (exclusive of ductwork) those whose minimums are $400 or over.

Price Index: Conversion Burners: Jan. 1940 is 100%

WHOLESALE				RETAIL			
February	103.6	Six months ago	110.4	February	108.4	Six months ago	109.3
January	100.0	Year ago	103.1	January	109.1	Year ago	105.0


INDEX OF BURNER PERMITS in 43 Cities
(Average of 1936-7-8=100)
INDEX OF NEW HOME PERMITS in 35 Cities
(Average of 1936-7-8=100)
Both indexes adjusted for seasonal variation
120.1
117.6
10.3
8.6
DEC MAR JUN SEP DEC MAR JUN SEP DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
1941 1942 1943

Oilheating Trends

INSTALLATIONS OF DOMESTIC oilburners and units in February are estimated at 1,604, a decline of 91% from the same month in 1942. The percentage drop is greater than in January, indicating that relatively less replacements were necessary. Reporting key dealers showed a reduction from the previous year of 87.2%, while burner permits in 40 representative cities were off 95%. February installations of 1,604 compare with 2,728 in January and 2,077 in December.

PRICES: Retail prices on the index dropped slightly, less than a point, from January while wholesale prices were up more than three points, recovering most of the drop they registered in the previous month. As previously explained, when so few burners are being sold the price fluctuations are partly due to the variety of sizes being bought, which would have little effect on larger peacetime volume. Thus, month-to-month prices are not too accurately comparable with individual peacetime months, but are compiled to avoid breaking the continuity of longer period price records.

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The reduction in gallonage sold by reporting distributors, comparing this season with last, has been 28.2%. Sectionally the Eastern drop has been 32.3% and the Midwestern 18.4% up to March 1. The sectional variation is accounted for by the difference in coupon values between the East and Midwest and by the tighter policies of Eastern boards. The net overall cut in demand caused by rationing has been somewhat greater, for some smaller distributors have quit business and the larger ones who report have been given their former business.

Truck mileage for delivering fueloil to March 1 increased 22.1%, averaging all distributors who have an accurate record. This is a big jump in 60 days, for these same distributors reported January 1 that mileage had increased only 2%. The small drops at peak of season and the many small emergency drops in Period 4 ran up the percentage.

Oilburner* and Building Permits

OILBURNERS					DWELLINGS			
February		2 MONTHS			February		2 MONTHS	
1943	1942	1943	1942		1943	1942	1943	1942
0	3	0	5	Albany, New York	..	..	..	..
0	299	6	506	Baltimore, Maryland	39	152	130	289
..	..	..	..	Binghamton, New York	0	3	0	5
..	..	..	..	Bloomfield, N. J.	0	22	0	25
22	83	22	221	Boston, Massachusetts	5	7	6	19
0	23	0	80	Bridgeport, Conn.	..	..	..	..
..	..	..	..	Buffalo, New York	..	22	..	30
..	..	..	..	Des Moines, Iowa	0	55	0	103
0	64	0	136	Detroit, Michigan	203	758	372	1137
0	10	0	23	Elizabeth, N. J.	8	0	8	2
1	7	1	19	Freeport, New York	..	..	..	..
..	..	..	..	Greenwich, Conn.	1	5	1	7
..	..	..	..	Hackensack, N. J.	0	2	0	3
0	22	1	71	Hartford, Conn.	..	..	..	..
6	75	20	148	Hudson County, N. J.	..	..	..	..
0	8	0	11	Irvington, N. J.	0	0	0	0
..	..	..	..	Lynn, Massachusetts	0	2	0	14
1	5	1	11	Meriden, Conn.	..	..	..	..
0	27	4	47	Milwaukee, Wisc.	48	55	32	86
7	37	12	99	Minneapolis, Minn.	0	38	1	70
..	12	0	21	Montclair, N. J.	..	..	..	..
..	..	..	..	Morristown, N. J.	0	0	0	0
1	15	2	34	Mt. Vernon, New York	..	..	..	..
1	21	2	52	Newark, New Jersey	..	..	..	..
3	14	8	32	New Bedford, Mass.	..	..	..	..
0	9	1	27	New Haven, Conn.	..	..	..	..
0	2	2	4	New Orleans, La.	..	..	..	..
0	12	0	21	New Rochelle, N. Y.	0	3	0	4
..	340	..	817	New York City (total)	..	..	..	..
..	248	..	618	Brooklyn-Queens	..	..	..	..
3	92	9	199	Manhattan, Bronx, Rchd.	..	..	..	..
0	98	128	209	Norfolk, Virginia	16	159	89	282
0	2	2	2	Oakland, Calif.	..	..	..	..
7	27	11	55	Omaha, Nebraska	1	54	1	120
1	3	1	10	Orange, New Jersey	0	1	0	2
0	8	0	14	Passaic, New Jersey	..	..	..	..
0	7	0	15	Paterson, N. J.	0	3	0	3
..	289	..	584	Philadelphia, Pa.	..	..	..	..
..	..	..	..	Plainfield, N. J.	0	1	0	9
0	25	0	34	Portland, Maine	4	2	4	4
3	206	6	457	Portland, Oregon	196	148	904	207
..	4	..	8	Poughkeepsie, N. Y.	..	..	..	..
0	42	0	108	Providence, R. I.	0	4	0	9
..	..	..	..	Reading, Penna.	0	0	0	3
0	22	1	30	Richmond, Virginia	28	36	33	83
0	12	0	80	Rochester, N. Y.	..	..	..	..
0	8	0	26	Rockville Center, N. Y.	0	7	0	7
0	2	0	8	Salem, Massachusetts	0	1	0	3
10	45	15	95	St. Louis, Missouri	0	33	0	83
2	72	5	131	St. Paul, Minnesota	0	34	1	50
0	20	2	52	Schenectady, N. Y.	..	..	..	..
..	..	..	..	Seattle, Washington	53	171	114	302
..	..	..	..	Springfield, Mass.	7	28	7	37
0	12	0	18	Stamford, Conn.	..	..	..	..
0	5	1	12	Syracuse, New York	1	2	1	5
..	..	..	..	Trenton, New Jersey	0	1	0	1
..	..	..	..	Utica, New York	0	0	0	0
3	125	5	356	Washington, D. C.	..	..	..	..
..	..	..	..	West Orange, N. J.	0	1	0	3
0	5	4	14	White Plains, N. Y.	0	0	0	1
1	44	3	56	Wilmington, Delaware	4	2	4	4
3	17	7	71	Worcester, Mass.	..	..	..	..
0	24	0	65	Yonkers, New York	..	..	..	..
75	1659	282	3685	*Totals*	614	1812	1708	3012
—95.0	..	—92.3	..	*Percent Change*	—66.2	..	—43.3	..

*Permits are not total sales in each market since none are reported from suburban areas, which normally account for 20% to 60% of total sales in each market; nor are they an accurate index where enforcement is lax. Rightly used, however, they are a useful working index.

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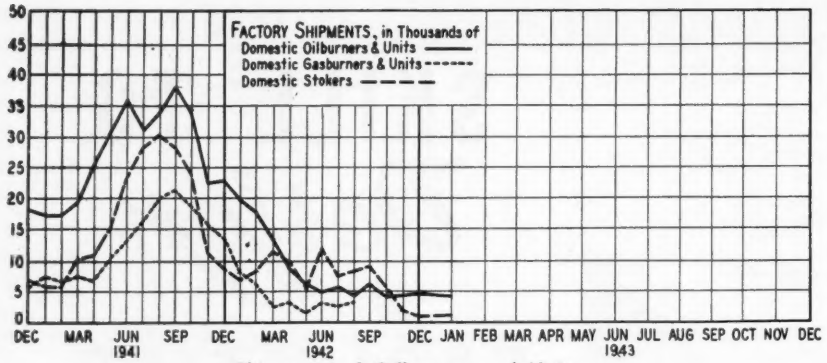
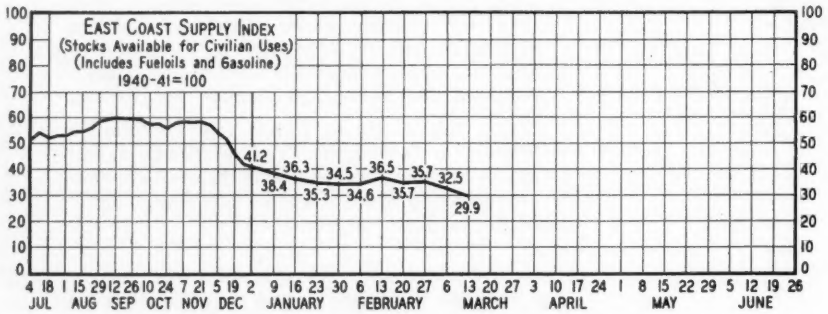
COMMENTS: "We need clearer policies on conversions" . . . "Local boards are doing a swell conscientious job and losing friends every hour; they have not received a pat on the back in any newspaper releases."



Shipments of Oilburners and Units

Adjusted to include manufacturers other than the 137 reporting to Census Bureau, FUELOIL & OIL HEAT's estimates of shipments are:

	JANUARY			TWELVE MONTHS		
	1943	1942	Percent Change	1942	1941	Percent Change
Conversion	2,300	16,259	—85.9	69,337	250,727	—72.2
Boiler units	653	1,027	—36.5	9,961	33,474	—70.3
Furnace units	1,230	2,199	—44.0	19,756	47,891	—58.8
All domestic	4,183	19,485	—78.7	99,124	332,092	—70.3
Commercial	4,153	4,179	— 0.6	60,490	37,482	+38.1
Total	8,336	23,664	—64.9	159,994	370,572	—56.8


EAST COAST SUPPLY INDEX
(Stocks Available for Civilian Uses)
(Includes Fueloils and Gasoline)
1940-41=100
41.2
38.4
36.3
35.3
34.5
34.6
36.5
35.7
35.7
32.5
29.9
4 18 1 15 29 12 26 10 24 7 21 5 19 2 9 16 23 30 6 13 20 27 6 13 20 27 3 10 17 24 1 8 15 22 29 5 12 19 26
JUL AUG SEP OCT NOV DEC JANUARY FEBRUARY MARCH APRIL MAY JUNE

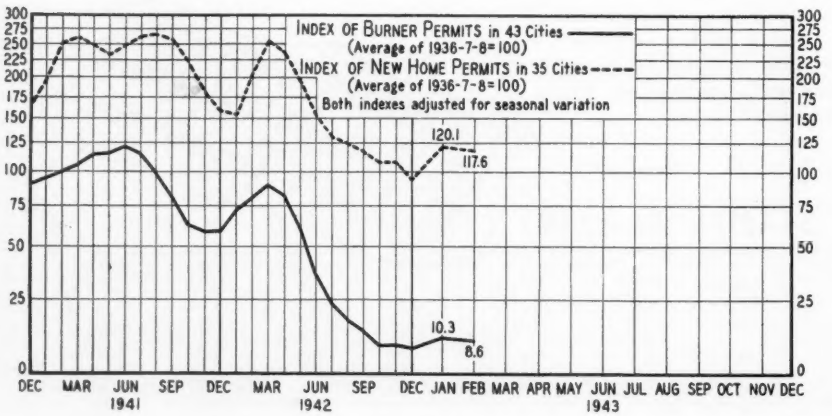
February Minimum Retail Prices: Key Dealers

	CONVERSION BURNERS		BOILER-BURNERS		FURNACE BURNERS	
	*Top price**	*Low price*	*Top price**	*Low price*	*Top price**	*Low price*
Highest	$345	$185	$645	$396	$715	$375
Lowest	200	165	425	295	425	328
Feb. aver.	263	173	499	344	496	348
Jan. aver.	263	179	493	369	509	363

*Top price key dealers for conversion burners are those whose minimum retail prices are $200 or more; for boiler-burner and furnace-burner units (exclusive of ductwork) those whose minimums are $400 or over.

Price Index: Conversion Burners: Jan. 1940 is 100%

WHOLESALE				RETAIL			
February	103.6	Six months ago	110.4	February	108.4	Six months ago	109.3
January	100.0	Year ago	103.1	January	109.1	Year ago	105.0



Oilheating Trends

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..	..	..	..	Bloomfield, N. J.	0	22	0	25
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6	75	20	148	Hudson County, N. J.	..	..	..	..
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1	21	2	52	Newark, New Jersey	..	..	..	..
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2	72	5	131	St. Paul, Minnesota	0	34	1	50
0	20	2	52	Schenectady, N. Y.	..	..	..	..
..	..	..	..	Seattle, Washington	53	171	114	302
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..	..	..	..	Utica, New York	0	0	0	0
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Interest in POST-WAR PLANNING?

R. M. Marberry, advertising manager, shows Walter F. Rockwell, president, and T. A. Crawford, general sales manager, some early results of Timken's Post-War Planning Advertising. Right: First TSA Post ad appeared on March 6.

Timken Scoops the Field!

Revealing a part of Timken's post-war plans in 37 newspapers and the Saturday Evening Post early in March resulted in this flood of evidence of public interest.

Thousands of letters—"we want more data," "send us your booklet"—congratulatory messages, telephone calls to Timken Dealers and visits to Timken showrooms resulted from this preliminary announcement.

Yes, the public is interested in post-war products! The public has confidence in Timken Silent Automatic!

Timken Silent Automatic has earned this position of leadership by building solidly in pre-war times — better products, lower upkeep costs, freedom from mechanical troubles, lower service costs, careful, conscientious planning with dealers, service training, sales training, full-color catalogs, mailing pieces, consistent newspaper and magazine advertising, and constant field sales and service contact.

Timken's post-war products will include improved automatic heating and air conditioning equipment, oil burning water heaters and other products for the home. All built with the same care and experience that have won and held leadership for Timken Silent Automatic.

Timken's post-war plans for dealer profits will be in tune with the times and in accordance with the steadfast Timken policy of providing substantial profits for strong, aggressive, progressive dealerships. Can you qualify? Write us today.

ARMY (E) NAVY
For Production "Well Done"

TIMKEN *Silent Automatic*

Division of THE TIMKEN-DETROIT AXLE COMPANY, Detroit, Michigan

Feast or Famine?

Supply Estimates Good; Statements Still Cloudy

By
A. E. Coburn

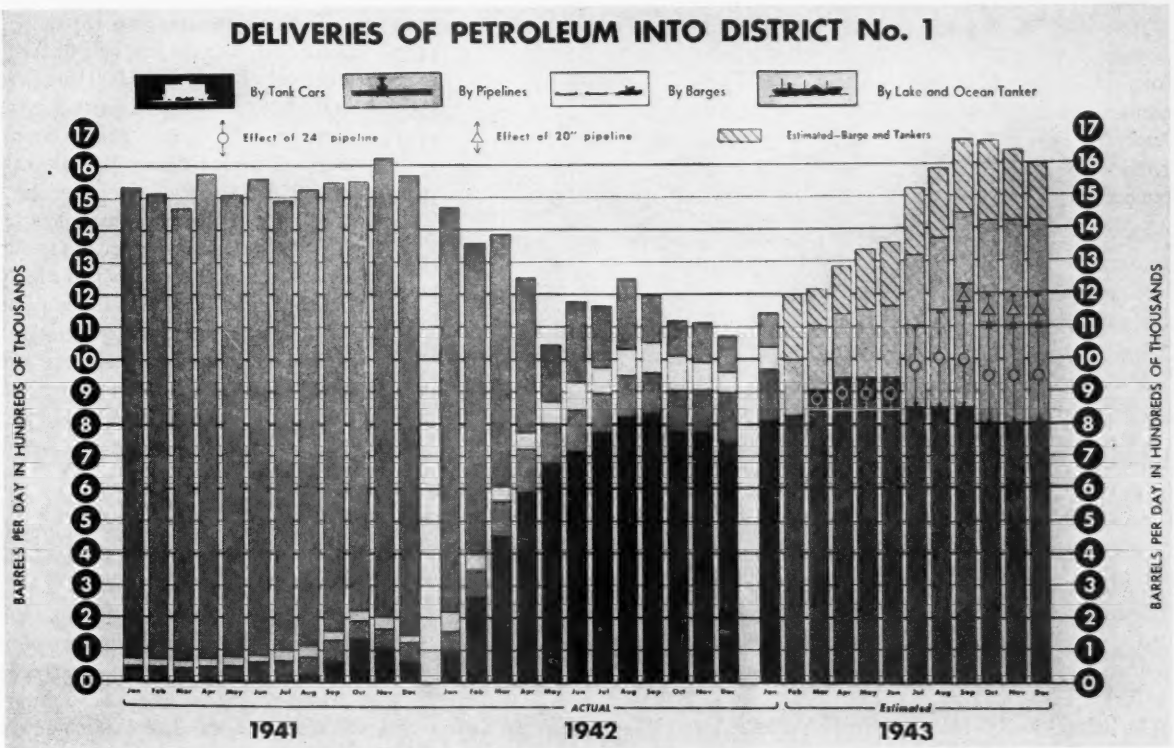
EIGHTY PER CENT of the estimated increase in eastern oil supplies for the last three quarters of 1943 over 1942 would supply all the domestic oilburners in the East for an entire normal, unrationed year, according to figures compiled by the Petroleum Industry War Council, forecasting petroleum shipments to District 1. The statistics on past supply by types of transportation, and the forecast for this year, have been released by Petroleum Administrator for War, Harold L. Ickes. Indicated average movement of oil into the East is 1,432,000 barrels a day this year, contrasted with a daily average of 1,215,000 barrels in 1942, an increase of 217 a day for the calendar year.

Most significant is the estimate of supply for the remaining nine months of this year. Oil is scheduled to flow eastward at the average rate of 1,520,000 barrels a day in the last three quarters of 1943, compared with a daily average of 1,155,000 barrels in the same period last year. This increase of 365,000 barrels a day is more than any additional demand that now can be foreseen.

Official pessimism still clouds statements out of Washington and the public utterances of men in PAW. Administrator Ickes warns that two possible increases in demand may wipe out the increase in supply: (1) the off-shore military demand, and (2) the possible increase in demand for heavy oils to fuel eastern war industries.

Military demand for petroleum products is a closely-guarded military secret. Any break-down of this demand would show, by its increases, the projected time and extent of future military operations. Estimates have been made of this demand, and also of the country's physical ability to haul this oil out of East Coast ports. Some men in authoritative places, who have all the estimates, are not greatly concerned about the future supply.

The possible, or probable, increase in demand for fueloil for more eastern war industry is not likely to be excessive. Or-



East Coast oil supply by types of transportation is shown for the last two years, and forecast for 1943. Chart prepared by the Committee on Transportation of the Petroleum Industry War Council.

ders now in force to compel conversion of non-essential commercial and industrial fueloil users probably will save more heavy oil by next winter than any additional war industry demand will require. Any excess in probable demand over the amount saved will not be likely to seriously affect the balance of supply and demand next winter.

Some oil men are frankly worried about eastern surpluses before the end of this year. Estimates made privately run as high as 50,000,000 barrels of surplus supply over estimated demand before the end of the year. These estimates of supply are based on present facilities being constructed, and do not anticipate the extension of the 20-inch Products Pipeline to the East. If extended, the Products Line would add about 235,000 barrels a day to the supply on completion. Because of the present eastern oil supply outlook, it is understood opposition is growing in Washington to expending the materials, money and manpower to bring the 20-inch line beyond Indiana.

Starting in April, it is estimated that the rail transportation of oil to the East will be increased by about 100,000 barrels a day, due to the shorter haul from the end of the 24-inch pipeline in Illinois, rather than all the way by rail from Texas. It is expected that the 24-inch extension to the East will be completed sometime in July. The first effect of the 20-inch Products Line probably will be felt in September, when it is likely to add 75,000 barrels a day to eastern supply, and 110,000 barrels a day for the last three months of the year.

DELIVERIES OF PETROLEUM INTO DISTRICT NO. 1

(Volume in Thousands of Barrels per Day)

	Tank Car	*Pipeline*	*Barge*	*Tanker*	*Total*
		1941			
January	6	41	25	1463	1535
February	6	40	24	1441	1511
March	3	40	25	1399	1467
April	5	45	22	1504	1576
May	6	46	27	1429	1508
June	2	61	22	1472	1557
July	3	66	32	1389	1490
August	22	57	33	1411	1523
September	66	64	30	1385	1545
October	131	59	33	1323	1546
November	104	62	37	1419	1622
December	60	61	29	1418	1568
		1942			
January	95	65	54	1252	1466
February	265	80	49	948	1342
March	456	104	49	772	1381
April	585	135	58	479	1257
May	672	130	64	177	1043
June	714	131	83	250	1178
July	772	123	81	187	1163
August	819	128	83	219	1249
September	829	127	95	147	1198
October	777	127	106	111	1121
November	774	130	86	125	1115
December	740	158	62	113	1073
		1943 (Forecast)			
January	808	158	69	107	1142
February	825	175	75	75	1150
March	903 (a)	200	50	63	1216
April	941 (b)	200	102	43	1286
May	941 (b)	212	138	44	1335
June	941 (b)	222	153	44	1360
July	850	472 (c)	178	29	1529
August	850	522 (d)	188	29	1589
September	850	597 (e)	198	29	1674
October	800	622 (f)	218	29	1669
November	800	622 (f)	188	29	1639
December	800	622 (f)	148	29	1599

(a) Includes 60,000 bbls./day, effect of War Emergency Pipeline.
(b) Includes 100,000 bbls./day, effect of War Emergency Pipeline.
(c) Includes 250,000 bbls./day from War Emergency Pipeline
(d) Includes 300,000 bbls./day from War Emergency Pipeline.
(e) Includes 300,000 bbls./day from W.E.P.L., and 75,000 bbls./day, effect of 20-in. Products Line.
(f) Includes 300,000 bbls./day from W.E.P.L., and 110,000 bbls./day, effect of 20-in. Products Line.

Tanker Oil to Drop

Tanker shipments into District 1 will decrease during the first half of the year, and level off at about 29,000 barrels a day in the last two quarters. Barge shipments, however, will average nearly double in daily oil hauled during the last half of 1943.

In spite of the mathematical fact that 80% of the estimated increase in supply for the rest of this year would supply all the normal needs of East Coast domestic oilburners next winter, the pressure still is building up for more and more conversions. There is evidence to support the belief that oilburners on hand might well be sold to relieve the pressure that is now on other fuels.

But Mr. Ickes insists: "It is true that forecasts by the petroleum industry indicate that the overland and inland waterway transportation of oil to the East Coast may reach or exceed 1,600,000 barrels daily by early fall. Even this very substantial movement, however, does not make us feel that there is any justification for optimism, as of this date (March 14), concerning the fueloil supply for next winter, or for future war winters. . . .

"Naturally we hope that we may be

able to build fueloil inventories back to a more comfortable level than existed at the start of the present heating season. Naturally, the Petroleum Administration, the oil industry, and the transportation companies will do everything physically possible to achieve that end. But, it should be perfectly clear that there can be no guarantee of such success. The present course, therefore, is to continue conversions from oil to coal to the full extent of its possibilities."

Disregarding other predictions of oil surpluses, Mr. Ickes' statement fails to indicate any probable shortage, but only that there might be less than a totally adequate supply for all needs if plans and forecasts did not mature completely. It is hard to understand his ardent support of the conversion drive in view of the present situation facing "substitute" fuels.

There is little doubt that the threat of a bituminous strike will be headed off. Contracts with Anthracite miners come up for renewal in April, and it is probable that some settlement short of production stoppage will be reached. There still are the problems of manpower, materials and transportation for coal that are becoming more acute by the day.

Coal Manpower

In the days of unemployment the coal industry said more about its huge manpower demand than it does today. In a folder issued in September, 1938, the Nationing Coal Association pled, "The labor factor in the mining of coal is very large. Approximately 60 per cent of the gross receipts of the mine operators goes into pay envelopes of the miners . . . The labor cost in fueloil, hydro-electric power and natural gas are negligible as compared with coal—in fact these fuels and forms of energy contribute very little to employment . . ."

Apart from the "negligible" manpower required to produce heat in the form of fueloil, it can be transported with a smaller expenditure of manpower and materials. Every pound of No. 2 oil contains 19,000 Btu, against an average of 13,000 Btu for the better coals, and requires no trucks, rubber or manpower to collect and haul away its ashes. But there still are those who see conversion to coal as a solution to the country's fuel problem.

Mr. Ickes is reported to have asked President Roosevelt for power over the production and distribution of coal, similar to those he now holds over oil. Newspapers say he "was compelled to 'bluff' his way through a crisis in New England last winter when anthracite supplies ran low," and had no real power to enforce the use of bituminous coal instead of needed anthracite. It is presumed that he could better enforce his edicts if he had a new whip in his hand. If coal is as plentiful as Washington press releases claim, it is hard to understand the need for dictatorial powers over production and distribution.

Class A (commercial and industrial) stoker manufacturers predict their greatest year in 1943, and the campaign to go into production on domestic stokers is far from dead. Some domestic stoker manufacturers freely predict they will be in production before the end of the year.

But the figures on oil supply indicate a volume this year far from the critical scarcity indicated by the frantic campaign to convert oilburners. If manpower and material shortages are as critical as claimed, it seems to be time for a less emotional and more realistic recasting of the fuel situation.

> **"The labor factor in the mining of coal is very large. Approximately 60 per cent of the gross receipts of the mine operators goes into pay envelopes of the miners . . .**
>
> **"The labor cost in fueloil, hydro-electric power and natural gas are negligible as compared with coal—in fact these fuels and forms of energy contribute very little to employment . . ."**
>
> ***—From a bulletin of the National Coal Association, September,* 1938.**

Daily average rail receipt of petroleum products in district 1 (East Coast) has been announced by PAW as:

Week Ended	*BBls./Day*
Feb. 20	820,553
Feb. 27	798,274
Mar. 6	797,102
Mar. 13	814,017
Mar. 20	807,879

"I just called the coal man and told him we converted to coal. He suggests converting to wood"

COLLIER'S — JOHN KAY KARAFFA

Reproduced by special permission from "Collier's" and the artist

Headaches Preferred

Sherwood Invited Them, to Spare Customers

By
Robert Gray

Spring comes early to the Chesapeake. A day in the last week of March is like May farther north. Hedges and Forsythia are out, and in the marshes above Baltimore thousands of northbound ducks take a day off to rest and get acquainted.

It was a propitious day to make a visit to Sherwood Brothers, first at their impressive offices in the Baltimore Trust Building and then out at the Highlandtown bulk plant, where Tom Carson, head of the company's oilheating division, puts two and two together. (*Carson is in photograph above.*)

After a winter like the past one, it was a spring fever day, to relax and talk. With most of the season's delivery job done, several of the company's big orange trucks were scattered about the plant yard, not parked in neat order but stopped wherever there was an open space, as though the drivers had shed them to step out and enjoy a long deferred yawn.

"YES," said Carson, draped at a precarious angle in his swivel chair and trying another draw on his curved-stem pipe that burns mostly matches, "it's been quite a winter. I've never put in a tougher six months, and don't expect to again, but I wouldn't have missed the experience for the world. We know a lot more about customers than we did a year ago, and what's more, our appreciation of them as people is pretty high after this winter. On the other side of the story the customers knew what we were up against and a good many have taken the trouble to tell us that they think we did a good job."

If there's anyone who doesn't already know it, Sherwood Brothers, Inc., has long been representative of the highest type in key oilheating dealers. Before equipment sales were stopped, installations of new oilburners, oilboilers and airconditioning units ran between 1,500 and 2,000 a year. Each time equipment was sold, a new fueloil and service customer was on the books, and the company now serves over 10,000 domestic users with heating oil in Baltimore, with another large operation in Washington.

The company personnel is steeped in the psychology of oilheating, rather than being concerned only with oil or burners as commodities, a state of mind much too prevalent now that difficulties have beset the industry.

Oilheating would never have reached the high public favor, with millions of domestic users, in the short space of 20 years if its growth had depended on the commodity-thinkers. The men who made the industry grow sold home comfort and convenience, better living, and fortunate today are homeowners whose heating needs are in the hands of such firms.

When rationing of fueloil was decreed at the end of the summer and details of the program became known, John R. Sherwood, the company's vice-president, and Carson, oilheating chief, sat down and faced the issues to conclusions. The big question was "Must we of necessity go 'commodity,' or can we continue 'oilheating?' "

Fueloil distributors by the dozen were abandoning degree-day operation, automatic deliveries and all the special services that had in times past been considered important. Their position was that, with oil scarce and enlarged internal difficulties facing them, customers were the least of their worries. Like the poor, they would always be around.

But there was only one way the thing could be answered at Sherwood's; continuation of complete service was a "must." You can't educate people for years to get them to lean on you like a big brother and then when more serious difficulties loom up, tell them you were just fooling; it destroys self-respect.

There were going to be headaches aplenty, but Sherwoods' decided far better have them all inside, where they could be wrestled with, than out in the customers' homes . . . the customers would be busy anyway, trying to keep down consumption.

Public Obligation

Analytically, the decision to continue automatic deliveries and service had three strong supporting considerations. First, it was a public service that couldn't be shirked; second, labor is scarce in war-industry Baltimore, and it would be hard to hold drivers if they had to abandon high-speed automatic deliveries and hang around front doors while Mrs. Doakes hunted for coupons and talked things over; third, automatic deliveries had in the past been an operating economy and, if they could be made to work under rationing, might continue to cost less.

The big problem, as every distributor who faced the question knows, was how to handle the thing internally. If everyone could be expected to fit accurately into the ration, period-by-period, it would only have been necessary to change "K" fac-

tors on all accounts, adjusting them to the rationed gallonage.

While that in itself would have been quite a chore, it would have been a Christmas holiday compared to what actually had to be done, as it turned out.

Carson decided to leave the K's alone, and try out an enlightened guessing contest. The degree-day staff was trebled before the peak season was over, and as each card came up in the regular system routine a man studied it against the remaining valid coupons, the apparent consumption rate, and did some mental arithmetic. Usually, the card went back into the system for a later come-up. When the operator estimated that the tank was low, and coupons were available, he scheduled the delivery.

Supplementary Rations

Just to prevent the operators becoming too confident, 30% of the customers got supplementary or auxiliary rations and made the man completely shift his basis of estimating. But, loose as the system sounds, the proof of its accuracy is in the fact that 96% of all deliveries were automatic, and none of Sherwoods' customers ran out of oil due to failure of the system.

Automatic deliveries with Sherwood are genuinely automatic. With all tanks equipped with ventalarms, the driver doesn't go near the door. He slips in any time of day or night, makes the drop and goes on his way. Under the loose degree-day operating system, the tank might be fuller than supposed, but still he can't run it over; the whistle signal stops him.

Continuing automatic deliveries was by no means the only help Sherwood Brothers gave customers in this difficult season. They literally invited headaches of every sort. When coupons were first issued, all in a heap, the company asked customers to deposit their coupons so that automatic deliveries could be continued, or, if they had questions or problems needing help, bring in the coupons personally.

An educated staff was waiting, both at mid-city headquarters and at the Highlandtown bulk plant. Folks took it seriously and for two weeks swamped both places. In the mid-town office a large meeting room was filled with desks and attendants to handle interviews. By the second day it was necessary to move in another string of desks to the wide main hall of the floor. Still the crowd overflowed into surrounding rooms, including John's private emporium, with its oriental rugs and 58 rare prints of wildfowl and windjammers (John was a collector before his family grew up and got expensive).

Now it's one thing to have 10,000 Baltimore customers on paper and something else to have most of them show up all of a sudden in the flesh. Most of the folks felt they knew John because all of the company's mailings have been so highly personalized. A lot of general letters are written to all customers on one topic or another. Not all of these are on the company letterhead. Some are on personal note-size paper, headed "Memorandum from John R. Sherwood."

So when they all got to asking for him, he abandoned his desk and spent the two weeks working with the crowd as front man and head usher. Carson says John never had more fun in his life.

A 300 pound housewife with two children in tow would exclaim, "Why, hello Mr. Sherwood, how are you?"

"Well, well, and how are you? I'm glad you came in. Are you getting fixed up all right?"

"Not yet—I thought maybe you could help me. Don't you remember me? I've been buying oil from you for seven years."

"Oh, yes, I knew you the minute I saw you, and I've been trying ever since to call your name. You'll have to forgive me; I'm a little embarrassed with so many friends coming in today."

"I'm Mrs. Jackson."

"Oh, of course, and did you bring your coupons. Here, let me see them. What! You didn't write the numbers on them."

"Well, can't you do that for me, Mr. Sherwood?"

"There's nothing I would sooner do if I could, but Uncle Sam won't let me. He says you have to do it. Now right over here is an easy chair and a shiny desk with a brand new pen. You sit right down here and catch up on your home work, and I'll see you later." A pat on the back and everybody laughed. The most impressive thing about the crowd was its good humor.

When customers were of the helpless variety, probably an old couple, or "broken-English," Sherwood men went all the way to help, even to going to their local ration boards to straighten out some point. Ten Sherwood men put in all of their spare time in the Fall as volunteer helpers at local boards so knew pretty well the detail of the program, and were able to spot the occasional obvious error.

As the season got under way, most customers at one time or another decided to call up and talk things over. The company's advertising and literature had always said, "Phone us for friendly service," so they did.

At the Highlandtown plant, which is operating headquarters for fueloil, Carson had 20 trunk lines on the switchboard, and as many men to handle calls. Where the average pre-rationing call had been two minutes, this winter it was ten. Over and over the men were cautioned to be sympathetic, not to become trite just because they had to answer hundreds of calls on the same questions. The call was important to the customer, and was usually prefaced by an apology for having to bother them at such a busy time.

Carson had some complaints that his phones were not being answered yet he couldn't find any internal evidence of it. Investigation disclosed that due to some peculiarity of their switchboard and the automatic phones in use throughout the

city, no one ever got a busy signal. Even if all 20 lines were in use, the customer would hear the ring at the other end. So a general letter was sent out explaining this, and telling customers that if they have the patience to hang on, they will be answered the minute a line is clear.

Like every one else in the business, Carson had a lot of difficulty getting the extra office help needed to handle coupons and the added degree-day system work. At the peak he had 19 extra helpers, but they were constantly changing, leaving for war plant jobs, or maybe they were housewives that would agree to work for only a few days, with time out if Aunt Minnie came. Over one short period the place was so bogged down that Carson and several of the others in the office brought in their wives, grown children, mothers-in-law, or any spare parts around the house.

Under such pressure, and with inexperienced helpers, quite a few mistakes were made. Carson now has two of his best people going through the whole lot, auditing each one. If mistakes injured the customer, compensation is made; if the customer was given too much oil, an explanation is going to local OPA headquarters.

Getting fueloil supply to be able to meet the demands of the customers' rations was a headquarters headache. There was never a comfortable stock on hand; rarely did total storage in Sherwood's five Baltimore neighborhood plants, plus the big tidewater plant on Sherwood point, equal two days' needs. One day for five hours all of the trucks were idle; that was the closest shave. John says that the supply and demand race every day was a photo-finish.

To educate homeowners to ration themselves on consumption, Sherwood ran a series of 15 newspaper advertisements in Baltimore and Washington, using a bulletin style, numbering them 1 to 15. As a public service, the copy was aimed at all fueloil users, not just Sherwood customers.

Text was short and pointed; typical are these four:

SHERWOOD BULLETIN #1

To Fuel Oil Users

The fuel oil you are burning now is precious. You'll need it more in bitter cold weather. Government rationing demands that you get along with much less oil—and you, and you alone, must make your ration last. Start right now. Get used to lower temperatures in your home. Get used to sleeping in unheated bedrooms. Set your thermostat lower, day and night, to avoid having no oil in the bitter days ahead.

SHERWOOD BULLETIN #3

To Fuel Oil Users

Are you going shopping today? Will your house be empty for several hours? Then turn the thermostat down ten degrees or more. Remember, it's up to you, and you alone, to make your rationed fuel oil supply last. Don't overlook any opportunity to use your oilburner less. The less you use it—the more rooms you shut off—the lower you keep your thermostat—the more fuel you save.

SHERWOOD BULLETIN #11

To Fuel Oil Users

A high percent of heat loss is through windows. Draw the shades in unused rooms during the day and in all rooms at night. By doing this you create an insulating air pocket between shade and glass. Scientific tests by research laboratories have proved that the fuel oil saving is substantial when shades are drawn to the sill. Remember the Government puts it up to you to make your rationed fuel oil supply last.

SHERWOOD BULLETIN #13

To Fuel Oil Users

Don't forget that fuel oil for heating hot water is rationed the same as fuel oil for heating. You must cut down on your use of hot water. Reduce the quantity of water used in tub or shower. Eliminate unnecessary running of hot water faucets. See that all faucets are tight and do not drip. Insulate your hot water tank if you haven't already done so. Maybe the setting of your aquastat can be lowered. Remember, the Government puts it squarely up to you to make your reduced fuel oil supply last.

Fueloil Deliveries by Sherwood Brothers
Baltimore Area

February, 1942 and 1943

	February 1942	*February 1943*	*Change*	*Change Percent*
Gallons Delivered	2,738,515	1,911,443	827,072	— 32.0
Number of Trucks	25	25	...	...
Total Miles Traveled	25,555	23,152	2,403	— 9.4
Hours Worked	6,089	5,585	504	— 8.3
Number of Deliveries	13,290	11,661	1,629	— 12.2
Number of Automatic Deliveries	12,548	11,301	1,247	— 9.9
Number of Call-in Deliveries	598	334	264	— 44.1
Non-Deliveries	142	286	144	+101.6
Special Deliveries	144	26	118	— 81.9
Degree Days	855	709	146	— 17.1
Minutes per Stop, Inc. Running Time	27.5	29.0	1.5	+ 5.4
Miles per Stop	1.92	1.98	.06	+ 3.1
Labor Cost per Thousand Gallons	1.89	2.68	.79	+ 47.1
Gallons per Delivery	206	163	43	— 20.8
Lost Truck Hours	136	64	72	— 53.2
Percent Automatic Deliveries	94.4	96.9	...	...
Percent Call-in Deliveries	4.5	3.1	...	...
Gallons per Degree Day	3,185	2,695	490	— 15.3
Gallons per Truck Mile	107	83	24	— 22.4

As another service to customers, Sherwood supplied each with a Check-Up Chart, so those who were interested could keep track of their own consumption against their rations, period by period. The chart, on heavy paper stock, had 52 columns, urged customers to check their position every week-end. In each column was space for six calculations, with simple instructions on how to use the spaces.

From the operating angle, Sherwood took a beating, the same as everyone else, but apparently less of a beating than many distributors. An accompanying table compares results in February with the same month a year ago.

Outstanding is the fact that average minutes per stop is up only 1½. Average drop is down from 206 to 163, still a fairly healthy figure, after experiences of some distributors. Almost none of Sherwood's customers have large tanks; 92% are 275 gallon. The big jump is in labor cost, partly due to rationing and the rest because of higher hourly rates to hold men against war industries.

Operators who abandoned automatic deliveries found their trucks and drivers tied up for several minutes at doors awaiting coupons and discussing the situation. One Eastern major oil company executive disclosed that with his company, this had averaged 15 minutes a stop. Sherwood had

(Continued on page 48)

Refigure and Rebuild

Many Installations Now Are Overfired and Wasteful

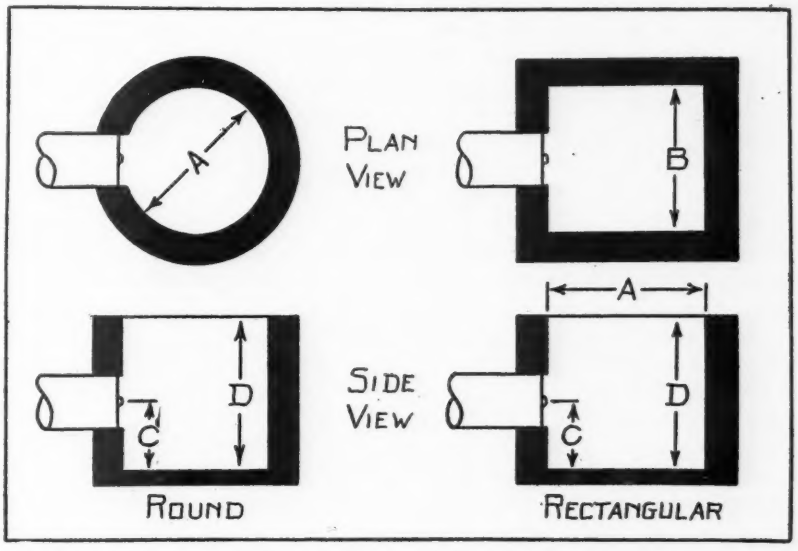
Fueloil rationing has forced heat-conservation measures in most homes — measures that call for a lower firing rate to get most efficient overall operation. Cooler homes, better insulation, lower night temperatures, and cut-off rooms have reduced heat demand. These installations, fired at a lower rate, may require smaller combustion chambers to make possible proper operating efficiencies, and to reduce oil consumption.

WHEN George Spelvin, American, cuts off a third of the radiation in his house and saves only 10% of his normal oil consumption he doesn't like it. George doesn't understand the intricacies of stand-by losses, pick-up, or evaporation from-and-at 212°F. He sees only that his normal 2200 gallons of heating oil has been cut to only 2080, and that isn't enough of a saving to pay for his trouble and discomfort. He expected to burn about 1500 gallons.

What George doesn't know — and every dealer should know—is that the reduction in heat demand should be accompanied by a comparable reduction in firing rate. And apparently too many dealers do not believe that a reduction in firing rate frequently requires a reduction in size of the combustion chamber if the job is to be operated at anywhere near the same efficiency it has been getting in the past.

In the March issue O. F. Campbell showed (on page 24) that a well-designed boiler-burner unit must operate at least 30% of the time to utilize 70% of the heat available in the year's oil supply. A well-designed conversion job must operate more than half the time to get an annual efficiency of more than 70%. The longer the "off" period the more heat is lost to the air flowing through the boiler, by radiation, and by fuel losses on starting and stopping. So, with less heat demanded, operating time will decrease and

(*Continued on page 20*)



*Firing Rate** Gals. per Hr.	A	B	C	D	*Firing Rate** Gals. per Hr.	A	B	C	D
.75	11	Round	5½	14	1.70	12	17	6½	15
.80	10	10	5½	14	1.73	13	16	6½	15
.90	10	11	5½	14	1.75	16	Round	6½	15
1.00	12	Round	6	14	1.75	14	15	6½	15
1.00	10	12	6	14	1.80	12	18	6½	16
1.00	11	11	6	14	1.84	13	17	6½	16
1.08	10	13	6	14	1.86	14	16	6½	16
1.10	11	12	6	14	1.88	15	15	6½	16
1.20	10	14	6	14	1.95	13	18	6½	16
1.20	11	13	6	14	1.98	14	17	6½	16
1.25	13	Round	6	14	2.00	17	Round	6½	16
1.28	11	14	6	14	2.00	15	16	6½	16
1.30	10	15	6	14	2.06	13	19	6½	16
1.30	12	13	6	14	2.10	14	18	6½	16
1.35	14	Round	6	14	2.12	15	17	6½	16
1.38	11	15	6	14	2.14	16	16	6½	16
1.39	11	16	6	14	2.16	13	20	6½	16
1.40	12	14	6	14	2.22	14	19	6½	16
1.41	13	13	6	14	2.24	15	18	6½	16
1.50	15	Round	6½	15	2.25	17	Round	6½	16
1.50	12	15	6½	15	2.27	16	17	7	16
1.53	13	14	6½	15	2.38	15	19	7	16
1.56	11	17	6½	15	2.40	16	18	7	16
1.60	12	16	6½	15	2.42	17	17	7	16
1.63	13	15	6½	15	2.50	19	Round	7	16
1.64	14	14	6½	15	2.50	15	20	7	16

*Firing rates shown for round and square combustion chambers are conservative, and chambers should be fired with a nozzle nearest the rate shown. Combustion chambers designed to fit the size and shape of the flame, and carefully installed, can be fired 25% harder than shown.

annual efficiency drop, unless the firing rate is reduced.

Let's assume that George Spelvin has an average conversion job. He has 450 sq. ft. of installed steam radiation in his 7-room house and sun porches. The original installer measured the radiation, added 50% for piping and pick-up, and 60 sq. ft. for hot water, making the total connected load on the boiler 735 sq. ft. of steam. At 240 Btu per hour, the load is 176,400 Btu. Assuming that he would get 70% efficiency from the 140,000 Btu oil, or 98,000 Btu per gallon, the firing rate was set at 2 gph. So the dealer built a 15" x 15" combustion chamber, tuned the burner, and George was satisfied that he had his money's worth.

Comes rationing, and George has cut off the sun porches, and sealed the French doors. He has also cut off the radiators in the spare bedroom, pushed a rug to cover the crack at the bottom of the door, and shut off all heat in the basement and the garage. This accounts for a third of the installed radiation.

With a third of the original 450 sq. ft. of standing steam radiation cut off, that now becomes 300 sq. ft., plus 50% for piping and pick-up, or 450 sq. ft., plus 60 sq. ft. for hot water, making the total boiler load 510 sq. ft. of steam. Allowing 240 Btu per square foot per hour, this total load represents 122,400 Btu per hour at present, instead of the original 176,400 Btu for which the firing rate was figured. This represents a reduction of 30.6% in the boiler load.

Rate Refigured

If again we assume 70% efficiency, or 98,000 Btu of heat used out of each gallon of oil, the 122,400 Btu divided by 98,000 gives slightly less than 1.25 gallons per hour. In normal times we probably would fire this load at 1.35 gph, but now the object is to save all the oil possible, even at the expense of slow pick-up, and cooler mornings.

But the 15" x 15" combustion chamber which was built for 2 gph, now is too big to get the required 70% overall efficiency we had figured. There is too much space in it. Fired at 1.25 the combustion efficiency will be low. If we set the air to avoid smoke on the start we probably will not be able to get the chamber hot enough for a high CO_2 and a 70% overall efficiency. The 225 sq. ins. of area in the 15" x 15" chamber represented 112 sq. ins. per gph when fired at 2 gallons, but it provides 184 sq. ins. of area per gallon at 1.25 gph. Careful installers, working for high efficiency, will want an area of 100 to 120 sq. ins. per gallon of oil fired into the combustion chamber. The 184 sq. ins. which this chamber now provides will not do.

Assuming that the Spelvin installation is to be fired at 1.25 gph, the chamber should be rebuilt, and cut in size to about 11" x 13", or possibly made round about 13" in diameter, depending on the size and shape of the flame. This will make possible an efficiency that could not be gotten from the old chamber, and will achieve the primary purpose—the saving of oil.

Danger in Underfiring

Experienced dealers will recognize that this smaller round or rectangular combustion chamber cannot be forced much beyond the 1.25 gph firing rate. Experienced and capable installation men will shape the chamber to fit the particular flame the burner produces, build the side walls higher, and possibly corbel the rear wall to reflect heat back into the flame. Such men will be able to build an 11" x 13" chamber that could be fired as hard as 1.65 gph without smoke. But to most present-day installers, the smaller chamber will offer little opportunity to fire much beyond the calculated 1.25.

Experienced dealers also will see the danger in cutting firing rates and reducing combustion chamber sizes on every boiler, simply because the load has been reduced. If the boiler is oversize for the normal load, there is danger in cutting the firing rate very much, or the lower rate will not steam the boiler. The condition will be most likely in new installations where a dealer has been able to sell a unit adequate to carry the total normal load comfortably. In most conversion installations the boiler is more likely to be undersize for the normal load than otherwise. People have a habit of buying as little boiler as possible, and then adding to the load. In these cases the lower firing rate will show considerably more economy than the original installation. In case of doubt, use the minimum firing rate recommended for the boiler, and build the best possible combustion chamber for that rate.

Getting back to North Main Street and the Spelvin installation, assume that the firing rate can be cut to 1.25 gph for the reduced load. This is a reduction of 37.5% from the old firing rate, and since the total load had been reduced 30.6% (from 735 to 510 sq. ft.) we are certain that the burner will operate for longer periods. But this is desirable.

"On" Periods Lengthened

Originally the installation burned 2200 gallons in a normal 200-day heating season. At 2 gph the burner ran 1100 hours a season, or 23% of the total 4800 hours in the season. During the coldest months the burner may have operated as much as half the time, and as little as one-tenth of the time in mild weather. If the reduction in firing rate to 1.25 gph cuts oil consumption to 1500 gallons, the overall operating time over the season would be 25%, probably with longer "on" periods during severe weather, and very little longer operation on mild days. This makes for better operating efficiency.

Overfiring may have been a way to avoid service calls in the jolly days of abundant oil, but now customers are not complaining too loudly about slow pick-up. They are used to lower temperatures in most cases, but those who cut off boiler load still expect to show a proportional saving in oil. There is only one way to insure it, and that is by reducing the firing rate and engineering combustion chambers to give maximum efficiency at the new lower rate.

Herd Draft Control Approved by N. Y. Board

THE HERD THERMOSTATIC damper control, manufactured by Herd Utilities, Inc., Providence, has been approved by the New York Board of Standards and Appeals for draft control installations.

The appliance was inspected and tested by the board's committee on tests with the following interesting results:

	Without Damper Control	*With Damper Control*
Draft over fire	.13	.04
Draft in flue pipe	.20	.09
Temp. at flue pipe	800°F	375°F
CO_2	7%	10%
Efficiency	65%	84½%

"Here's where this service business is coming from!"

24 HOUR SERVICE

OIL BURNERS
of ALL MAKES
DOMESTIC
INDUSTRIAL
Expert Service is Cheapest

Oil Burner Service Co., established 13 years in Minneapolis, furnishes only Factory Trained Service Men assuring complete satisfaction.

For Dependable Service Call
RE gent 7288

EMERGENCY SERVICE
NIGHTS SUNDAYS HOLIDAYS
For your convenience Minneapolis Service Men can be reached by calling
MI dway 1177

OIL BURNER SERVICE COMPANY, INC.
315 WEST LAKE STREET

Prospects reading this advertisement in the Classified Telephone Directory quickly learn many of the facts they want to know. Note especially the phrase: "Furnishes only factory trained service men."

OIL BURNERS SERVICED

We Specialize in
- CONVERTING OIL
- BURNERS INTO
- COAL BURNING UNITS

Fitzgibbons Boilers a Specialty

WE ARE ALSO PREPARED TO REPLACE YOUR OLD OIL BURNER - CONSULT US FOR EFFICIENCY TEST for FUEL ECONOMY

— 24-HOUR SERVICE ON ALL MAKES —

LICENSED & BONDED for YOUR PROTECTION

PERFECT OIL HEATING & ENG. CO.
4912 16th AVENUE
Windsor 8-4480

Home-owners who wish to convert their furnaces are attracted to this type of advertisement in the Classified section of the Telephone Directory. A timely and well planned message such as this pays dividends.

MUELLER FURNACES

Authorized Agents
INSTALLING
REPAIRING
CLEANING
Vacuum Furnace Cleaning
Stokers

University Sheet Metal Works
35 Years Serving Seattle
4237 University Way
Melrse 0948 Residence

Mrs. P. of Seattle, Wash., wanted a pipeless furnace remodeled. She consulted the Classified and was attracted to the advertisement of the University Sheet Metal Works. She called them and had a man come out.

GET IT COMING YOUR WAY, TOO: People who refer to the Classified Telephone Directory are BUYERS. They will call you if your advertising tells them that you offer the type of service they want. A Directory Advertising Representative who knows what people look for will be glad to help you plan your advertisement. You can reach him by calling the business office of your local telephone company.

fueloil & oil heat

New Rationing Program Nearing Completion

THE FUEL RATIONING DIVISION of OPA expects to have ready for release the details of next season's fueloil rationing program on or about April 15. Much time and study has gone into the preparation of the revised plan, with OPA staff and field forces having spent the full week of March 8 going over some 315 suggestions that had come in from industry men. Then in the following week the Industry Advisory Council of 27 men spent several days in consultation with Rationing Division chiefs and reached substantial agreement on the more important points. While the details cannot yet be disclosed, the new plan will definitely reduce truck mileage, minimize excess manpower requirements and permit summer filling of tanks within ordinary size limits.

Plans Compared

An extensive discussion and comparison of industry plans to a modified coupon system occupied much of the time of the Council meetings. Among the many topics surveyed were:

Elimination of coupon credit, issuance of rations early in July, Summer deliveries against next year's ration, increase in the denomination value of coupons, elimination of the delivery record, improvement in coupon perforation, clearer color differentiation between types of coupons, fixed value coupons for small users, vertical subdivision of thermal zones, change in the number of heating periods, freezing of validity dates of heating periods, increase of validity overlap to a full period, creation of a special inventory period whose coupons are valid throughout the year, simplified reissuance based on last year's ration, development of additional guides for kerosene rations, raising the level or abolishing the maximum per capita floor area, extension of the use of delivery receipt (Form R-1125) to cover all users above 20,000 gallons a year, ration banking for all suppliers and for dealers above a certain volume level, improvement in industry relations, better public education, conservation and conversion.

The Industry Advisory Council membership is composed of:

W. W. Vanderveer
Allied Oil Co.,
Cleveland, Ohio

John Howatt
E. N. McDonnell
American Society of Heating & Ventilating Engineers,
Chicago, Ill.

Dr. L. D. Bristol
Medical Advisor,
American Tel. & Tel. Co.,
New York, N. Y.

Fred Corey
Atlantic Refining Co.,
Philadelphia, Pa.

Melville Keim
Apex Motor Fuel Co.,
Chicago, Ill.

John W. Scott
Buckley & Scott,
Watertown, Mass.

George Baldwin
Fuel Oil Corporation,
Detroit, Mich.

Howard C. Jones
Delco Appliance Div.,
Rochester, N. Y.
(Representing Oil Heat Institute)

Joseph C. Fitts
Heating, Piping and Air Cond. Contractors Nat'l. Ass'n.,
New York, N. Y.

Robert Gray
Heating Publishers, Inc.,
New York, N. Y.

Myron R. Holmgren
Hughes Oil Co.,
Chicago, Ill.

R. E. Ferry
Institute of Boiler & Radiator Manufacturers,
New York, N. Y.

Len Cassidy
Johns Manville Corp.,
New York, N. Y.

Russell Keck
Kendall Refining Co.,
Bradford, Pa.

George Koertel
Liberty Bell Oil Co.,
St. Louis, Mo.

H. D. Maxwell
Maxwell Petroleum Co.,
Tacoma, Wash.

R. D. Rankin, Sr.,
Missouri Valley Oil Co.,
Kansas City, Mo.

Frank W. Clucas
Nat'l. Ass'n. of Master Plumbers,
Washington, D. C.

Robert Thulman
Federal Housing Administration,
Washington, D. C.

T. F. McGarey
Petrol Corporation,
Philadelphia, Pa.

P. E. Lakin
Jack Minner
Shell Oil Co., Inc.,
New York, N. Y.

John R. Sherwood
Sherwood Brothers, Inc.,
Baltimore, Md.

W. L. Faust
Socony-Vacuum Oil Co.,
New York, N. Y.

T. S. Peterson
Standard Oil Co. of Calif.,
San Francisco, Calif.

E. W. Miles
Standard Oil Co. of Indiana,
Chicago, Ill.

J. W. Connolly
Standard Oil Co. of New Jersey,
New York, N. Y.

K. E. DeRosay
Sun Oil Company,
Philadelphia, Pa.

Amendments to the rationing law since the last issue are:

Amendment 39. The definition of "additional facilities" is changed to include stoves obtained under Ration Order No. 9.

Amendment 40. Regional administrators are authorized to extend coupon credit period.

Amendment 41. Coupon credit is extended to include Washington, Oregon.

Amendment 42. Non-heating farm rations to be issued on six-month basis, instead of three-month.

Amendment 43. Certification by heating experts may be waived by boards in special cases.

Amendment 44. Procedure for issuing suspension of ration orders.

Amendment 45. Allowance of extra ration to consumers who can prove general hardship under existing rations.

Amendment 46. Allows substitute rations for consumers who have had a change of circumstances since original rations.

Amendment 47. On auxiliary applications of 100 gallons or more, a stove certificate shall be issued instead, unless applicant proves inability to buy or handle stove.

Amendment 48. Advances validity date of Period 5 coupons.

Amendment 49. Fueloil rationing was extended to include 20 western Idaho counties on March 14, inasmuch as fueloil is supplied to this area only through Washington and Oregon, both already rationed.

The Idaho counties affected are Ada, Adams, Benewah, Boise, Bonner, Boundary, Canyon, Clearwater, Elmore, Gem, Idaho, Kootenai, Latah, Lewis, Nes Perce, Owyhee, Payette, Shoshone, Valley and Washington.

Amendment 50. Prohibits use of oil for electric power generation where power produced by coal or hydro-electric means can be made available. Applies to Eastern States.

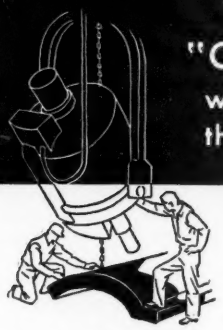
◈

Fueloil Rationing OK Customers Tell Gallup

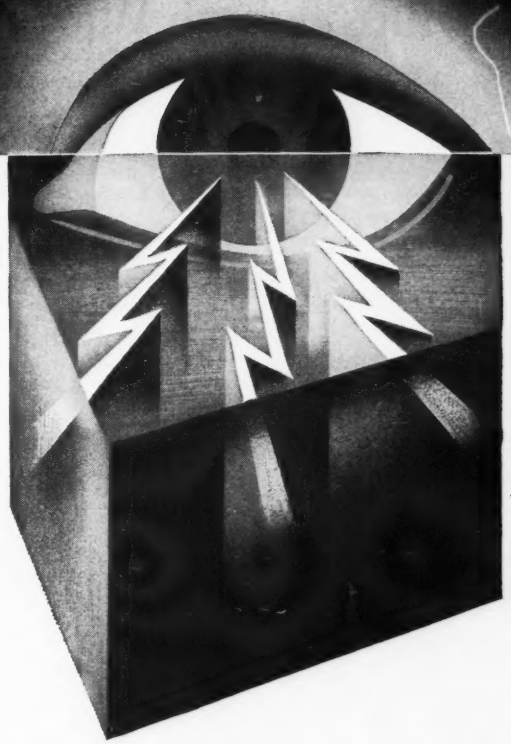
ANSWERING THE QUESTION, "Do you think the rationing of fueloil has been handled fairly in your area," 68% of rationed users told the Gallup poll that it had. Only 23% thought it unfair, and 9% had no opinion in the 30 rationed states. The poll report points out that dissatisfied users' chief complaint is not so much against the amount of fuel allowed as against alleged inefficiency among rationing boards and inequality or favoritism in the allocation of oil.

The poll also indicates that people are

There's a
GREAT DAY COMING!



"CRYSTAL GAZING"
with a 1,000,000-volt eye through 8 inches of steel



At last, engineers have solved the mystery of what goes on *inside* metals! With power to penetrate 8″ of steel, 1,000,000 volt X-Ray machines "expose" any hidden defects . . . permit the *crystals* of the metal to be examined as a physician examines the cells of the human body.

This scientific "crystal gazing" is a vital aid to Delco Appliance's all-out war production. By revealing flaws and providing a guide to repairs, it speeds inspection, insures quality, cuts rejects. It also enables engineers to work out improved casting techniques, and new combinations of elements that result in new metals of far greater strength, lightness and durability.

And this is just the beginning! Even now a *hundred million* volt X-Ray machine is being built. Imagine how such giants can help Delco Appliance still further increase the efficiency and long life of the new home equipment planned for post-war selling! In the meantime, *"Victory Is Our Business".*

Delco Appliances include Automatic Delco-Heat (oil-coal-gas), Delco Water Systems, Delco-Light Power Plants and Delco-Light Ironclad Batteries.

DELCO APPLIANCE

ROCHESTER, N. Y.

DIVISION of GENERAL MOTORS

Fuel oil & oil heat

keeping lower temperatures in their homes than they did at the start of the heating season, but temperatures still are well above the recommended daytime 65°. The conclusion is that, "if war demands make it necessary, oil allowances in some areas could be reduced still further without seriously impairing health. Of the users interviewed in the rationed area, 56% are maintaining temperatures above 65°.

The most recent survey showed users maintaining temperatures as follows:

Under 65°	11%
At 65°	33%
At 68°	19%
At 70°	23%
Above 70°	14%

Early last December a survey made in the same territory showed 66% of the users were keeping temperatures above 65°, compared with 56% in February.

OHI Maps Active War-Time Year At Twentieth Annual Meeting

FIRM DETERMINATION to preserve and protect the oilheating industry during the emergency period was apparent at every session of the Twentieth Annual Meeting of Oil-Heat Institute of America, held at New York, March 8 and 9. Well-attended meetings radiated conservative optimism for the future of the industry, and heard speakers describe a healthy oilheating market with an abundance of oil in the post-war period.

President C. E. Lewis of Delco Appliance Division of General Motors Corporation, reelected at the meeting, outlined to an industry conference the aims of the Institute, and asked for a unified industry to meet the immediate problems facing the industry:

1. The liquidation of existing manufacturer and dealer inventories.

2. Maintaining a watchful attitude towards any plans tending to force residential conversion from oil heat.

3. To give full attention to the fuel oil situation as regards supply and rationing methods affecting the 1943-44 heating season.

4. Promoting complete organization of the oil heating industry to include manufacturer membership of those engaged in the industrial as well as the residential fields and, further, to include an organization of the dealer group interested in the sale of oil heating equipment and fuel oil.

This important meeting of the Industry had as a further objective the consideration of a program:

(1) The dissemination of information to give clearer understanding of an ample supply of fuel oil for the postwar period.

(2) Promoting product research to meet the requirements of new housing for equipment of higher efficiency and lower heat losses.

(3) To conduct postwar planning which would overcome the impact of the war and place the Industry in a most favorable position to get its full share of the postwar market.

Indicative of the optimism of the membership, and the need for strong industry organization, was the approval of doubled membership dues for this year to finance Institute activities. Chief among these activities will be the organization of dealers and dealer associations into the membership of Oil-Heat Institute to give representation to field personnel and bring the whole industry closer to its customer.

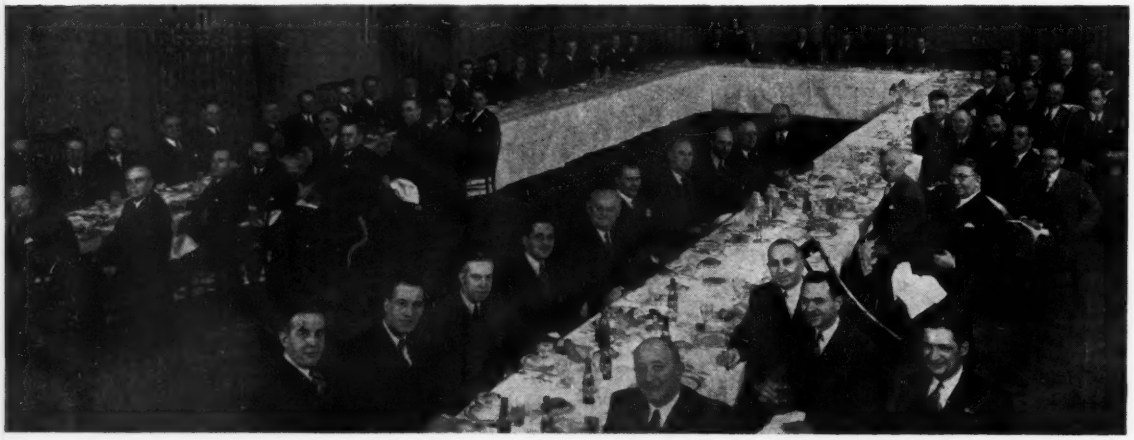
Highlight of the annual dinner was the presentation of the "Aladdin's Lamp," symbol of distinguished service to the industry, to President Lewis for his work in the last year. In making the presentation W. A. Matheson of Williams Oil-O-Matic outlined the work Mr. Lewis has done, and commended him on his foresight and leadership.

Also reelected were John Rainbault of General Electric as vice-president, and C. F. Curtin as secretary-treasurer. Directors elected for a three-year term were R. S. Bohn (Preferred); Stanley Hope (Gilbert & Barker); George Hochstein (Heil); C. E. Lewis, C. E. Shields (Petro); J. H. Van Sciver (Bethlehem); and an individual to be selected by the S. T. Johnson Company.

The new Executive Committee are: Alexis Doster (Torrington); W. A. Matheson (Oil-O-Matic); M. A. Powers (Timken); W. F. Brannan (Fluid-Heat); R. G. Whipple (Harvey-Whipple); in addition to Messrs. Bohn, Van Sciver, Rainbault and Lewis.

During the sessions members were addressed by Dr. Robert E. Wilson, President, Pan American Petroleum and Transport Company and Chairman of the Economics Committee of the P.I.W.C.; his subject was the petroleum supply — immediate and future.

The Executive Committee will meet at New York on the second Tuesday of each month, and the Board of Directors will meet next on July 13.



The OHI *annual banquet at New York.*

LOADED FOR AXIS BUZZARDS!

Enemy planes have been sighted. Gun crews stand by their weapons, alert and ready for action. Closer and closer come the minions of death and destruction. An officer moistens his lips in a little gesture of nervous anticipation. Then . . . "Commence firing!"

That command is the culmination of a vast amount of preparation and planning for just such a moment as this. It is a challenge to the members of the gun crew . . . a test of the skill and knowledge they have attained in months of diligent practice. It is a challenge to the gun itself. But most of all, it is a challenge to those who, with their minds and hands, designed and built this shell-flinging guardian.

That command is a challenge which the men and women of the Silent Glow Oil Burner Corporation have accepted, for, as part of our service to the Nation's war program, we have been entrusted with the manufacture of certain intricate anti-aircraft gun mechanisms. The more faithfully and skillfully we do our job, the sooner will come the day of Victory. Then, once again, we can return to the manufacture of precision heating equipment for home and industry. Until that time, we urge you to purchase your share of War Savings Bonds and Stamps.

THE SILENT GLOW OIL BURNER CORPORATION

Hartford, Connecticut

SILENT GLOW OIL BURNER

TRADE MARK REGISTERED IN U.S. PAT. OFF.

FOR HEATING, COOKING, PROCESSING

500 Fueloil Rations

Examination Shows Close Parallel with Intent of Program

TO GET NEEDED INFORMATION on how this year's rationing program has actually been carried out, a study was made of 500 fueloil rations issued by a local board in a semi-suburban area 30 miles out of New York City. No attempt was made at selection for any particular purpose; the 500 were lifted as a block from one file drawer and include all rations issued to the alphabetical group Fa to Gre.

GENERAL SUMMARY. The rations are separated for examination into eight general classifications. These, with ratios and gallonages are set forth in Table 1.

TABLE 1

	No. of Rations	Percent of all Rations	Total Gallons Rationed	Percent of all Gallonage
Domestic Central Heating	164	32.8	304,111	58.5
Domestic Space Heaters	90	18.0	37,431	7.2
Domestic Range Burners	57	11.4	25,557	4.9
Domestic Cooking	95	19.0	19,114	3.7
Domestic Water Heaters	20	4.0	5,150	1.0
Commercial, Apartment, Central Heating	39	7.8	76,394	14.6
Commercial Space Heaters	19	3.8	4,040	.8
Miscellaneous Uses	16	3.2	48,058	9.3
	500	100.0	519,855	100.0

The over-all reduction from the previous season's consumption was 36.3%, apparently a sharper cut than intended in setting up the rationing program. The actual reduction was somewhat greater, since the ration board's records assume all indefinite value coupons worth ten gallons, whereas they were devalued to nine and eight gallons, respectively, in two periods. Thus actual oil available to users in heating and water heating groups was 6% less than the ration figures used. Moreover, the cuts shown in Table 2 are from last season, before adjustment to normal. The percentage cut from normal is greater; on home central heating, 34.8.

TABLE 2

	No.	Previous Consump.	Orig. Ration	Xtras	Total Ration	% Cut
Domestic Central Heating	124	286,842	199,226	9,405	208,631	27.3
Domestic Space Heaters	52	37,929	23,650	1,060	24,710	34.0
Domestic Range Burners	46	29,925	18,212	1,245	19,457	35.0
Domestic Cooking	91	29,960	18,058	48	18,106	39.7
Domestic Water Heating	12	5,389	2,805	105	2,910	46.0
Com'l., Apart., Central Heating	37	170,103	41,642	32,362	74,004	56.2
Commercial Space Heaters	19	8,340	3,790	250	4,040	51.6
Miscellaneous Uses	16	59,012	47,058	1,000	48,058	20.2
	397	627,500	354,441	45,475	399,916	36.3

A considerable number of applicants had no history of past consumption; these are omitted from the table. Also omitted are 14 large homes where area ceiling limitations caused an abnormal ration cut.

DOMESTIC CENTRAL HEATING. Home-owners who had a record of their previous season's consumption fared better than those who had no record. Where there was no record, the ration was based solely on square feet of floor space; these users were given the mid-point of the formula range. The comparison between the two groups is made on a gallons-per-square-foot basis.

Thus, it is apparent that the average home has a lower thermal efficiency than was assumed to be the case when the mid-point of the range was calculated. Lower thermal efficiency brings more oil per square foot under the flexible provisions of the rationing plan.

TABLE 3

	No.	Avg. Floor Area	Avg. Past Consump.	Avg. Ration	Rationed Gallons per Square Foot
Homes With Past Record	124	1642	2314	1684	1.025
Homes Without Past Record	22	1566	....	1571	.998
Homes Limited by Area Ceilings	14	6740	8396	3938	.585

A few homes (14 in this study) had abnormal cuts from past consumption because they were large enough to run afoul of the area ceiling limitations. These provide that no home, however large, may have more than a prescribed amount of oil per occupant, and are designed to prevent the 20-room house with three occupants getting an excessive ration. Comparisons of the three types are in Table 3.

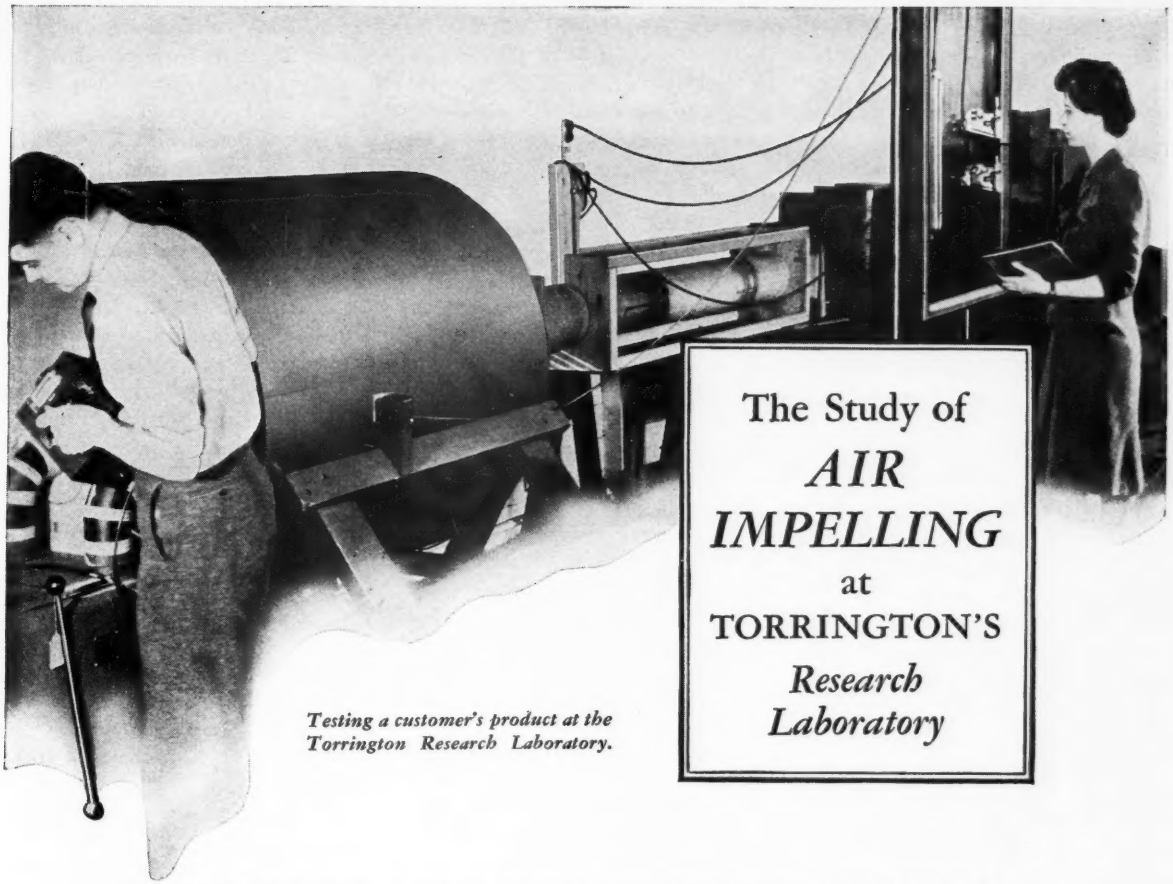
Of the 124 homes in the first group, 35 were given supplementary rations after the first ration was issued. While a handful of these were given because of Doctors' applications on Form 1104, in most instances the cause was low thermal efficiency of the houses, as measured by excessively high past consumption per square foot. Some interesting observations on these 35 houses can be compared with Table 3.

Average Floor Area	1338 sq. ft.
Average Past Consumption	2504 gal.
Average Initial Ration	1363 gal.
Aver. Cut From Prev. Consump.	45.6%
Average Supplementary Ration	269 gal.
Average Total Ration	1632 gal.
Rationed Gals. per Square Foot	1.220

It is obvious that the board, in reviewing these cases, stretched to the limit every flexibility in the law to prevent serious hardship.

DOMESTIC SPACE HEATERS. While 90 rations were issued for domestic space heaters, it is possible to analyze only 52 of these, for the others lacked either past history of consumption or floor area, or else they were used as auxiliary heating in houses having equipment to burn other fuels.

In several instances past consumption records given were suspect, since most dealers who supply this group do not keep accurate records. When some applicants, at the start of the rationing program, told the volunteer workers in the board office that their dealer had no records, the work-



Testing a customer's product at the Torrington Research Laboratory.

The Study of *AIR IMPELLING* at TORRINGTON'S *Research Laboratory*

PROBLEMS relating to weapons of war are increasing the scope of the work carried on by the Torrington Research Laboratory and thereby make its services more valuable than ever before to users of blower wheels or propeller fan blades.

Our staff's consultation service includes advice on: the proper type and size of air impeller, the correct housing design for blower wheels or the correct orifice for propeller fans and the proper location of the fan in its orifice, the correct location of the blower in the unit to assure unrestricted air flow, and ways to reduce noise.

The laboratory also serves Torrington customers by the study and testing of their existing units for the improvement of the factors mentioned above.

If you are a manufacturer of "pot type" burners, our facilities are at your service in selecting the proper type of air impeller to aid combustion or provide air circulation.

THE TORRINGTON MANUFACTURING COMPANY, TORRINGTON, CONN.

MANUFACTURERS OF AIRISTOCRAT QUIET PROPELLER FAN BLADES & AIROTOR BLOWER WHEELS

ers naively told them that they must have a past record to get a ration, so the applicants returned later in the day with certifications from the dealers who had said they had no records. Thus, the past consumption figures used should be somewhat discounted. Analysis of the 52 rations follows:

Average Floor Area	513 sq. ft.
Average Past Consumption	730 gal.
Average Initial Ration	456 gal.
Aver. Cut From Prev. Consump.	37.6%
Average Supplementary Ration	19 gal.
Average Total Ration	475 gal.
Rationel Gallons Per Square Foot	.926

Based on the gallons-per-square-foot measure, it is apparent that the board was tight in its allowances, for the rationing law provided more liberal allowances for space heaters than for central heating, while this board appears to have granted less. Because of the fuzzy nature of many of the applications, the volunteer workers were told that, in cases of doubt, the ration should be conservative, depending upon appeals if hardship was caused. There were almost no appeals from this class, so the tight rations stood.

When space heaters are auxiliary to other forms of heating, the board had to do a lot of guessing. Floor area means little, and past consumption rarely available, so there was no sound basis other than minimizing the guesses and waiting for appeals to bring out more facts.

DOMESTIC RANGE BURNERS. Perhaps the hardest class to properly ration among domestic fueloil users is the range burner owner. These burners are installed in kitchen stoves originally designed for coal. In addition to doing the family cooking, they often have coils connected to a tank to provide hot water and always do some heating, either auxiliary or sometimes are the only source of heat in small flats or cottages. Again, past consumption records are often unreliable or unavailable, for most such users are served by peddlers.

Because of these complexities, most of these rations were reviewed by board members with the result that there have been few appeals, although the general policy was to minimize the ration and allow more if hardship was proven.

Average Previous Consumption	696 gal.
Average Initial Ration	424 gal.
Average Supplementary Ration	29 gal.
Average Total Ration	453 gal.
Aver. Rationed Cut From Prev. Year	35.0%

DOMESTIC COOKING. This group is sometimes hard to distinguish from the range burner classification, since the equipment may be a range burner or it may be a regular oil cook stove. If the ration was for cooking only, it was listed with this group while if it was a combination of cooking with water heating or space heating (often all three) it was classified as a range burner.

Out of 91 cooking rations analyzed, only one was given a supplementary ration. This does not mean that there were few appeals for more oil. In fact there were many, but since the rationing law has no flexibility on cooking allowances other than number of persons, all such appeals were refused. From ration board experience it is fairly obvious that the cooking limits in the law are too low.

Past consumption records, though stated in nearly every case, are unreliable. At best, they are estimates, for cook stove kerosene is bought from peddlers, stores and filling stations, who often do not know who the customer is.

The average claimed past consumption was 328 gallons and the average ration issued was 199 gallons for 12 months, or a cut of 39.7%.

DOMESTIC WATER HEATING. Out of 20 rations issued for domestic water heating only, 12 had a past consumption record. Average past consumption was 449 gallons, while average ration issued was 242 gallons, representing a cut of 46%. The rationing law contains a stated limit per person per month on water heating fueloil allowances. From this record, it appears to be too low.

The average water heating ration, with or without past history, was 257 gallons.

Hot water heating allowances also were made on 136 central heating rations, or 83% of the 164 central heating rations issued. Of the 136 such hot water allowances, 117 were for year-round hot water and 19 were for a lesser number of months. This indicates that 71% of domestic central heating plants provide all-year hot water; the industry estimates 40%.

Hot water allowances were given in connection with 36 range burner rations issued, out of 57 total range burner rations, or 63%. Year-round water heating was claimed by 35, with only one for fewer months.

COMMERCIAL AND APARTMENT CENTRAL HEATING. Out of 39 rations issued for this purpose, the record of 34 is complete with past consumption and floor area. These are analyzed below.

In dealing with this group, the board made serious effort to carry out the provisions of Amendment 7, which in effect force conversion to other fuels if the heating plants are convertible. Initial rations were issued for only the first two periods and all such users advised that to get any more oil they must prove that their plants cannot be converted.

Numerous ones provided letters from local plumbers and heating men to this effect, but before accepting these as final the board investigated the heating plants. They required the owner to furnish the make, model and serial number of the boiler, then checked these with boiler manufacturers to learn if conversion were possible and how long it would take to get the parts. Nearly all that had been certified as non-convertible were found to be convertible, so additional oil was allowed only for the time necessary to convert.

Of the 34 analyzed, 30 are known to have converted, and about the same ratio would apply to all of such rations in the files. Characteristics of the 34 are:

Average Floor Area	6340 sq. ft.
Average Previous Consumption	5015 gal.
Average Ration, Including Extras	2178 gal.
Av. Reduction From Past Season	56.2%

Before rationing started, normal consumption of such buildings in the area of this local board was about 1,800,000 gallons a year, or 27% of total fueloil used for all purposes. Converting 90% of this reduces total fueloil needs nearly 25%.

While the board vigorously enforced the law requiring conversion of these larger buildings, it made no effort to get homes converted. As a result, only two homes out of the 164 analyzed in this study have converted since rationing started.

COMMERCIAL SPACE HEATERS. Small stores heated with space heaters were given rations for only two periods, following Amendment 7, and urged to convert. However, the board recognized that space heaters are actually not convertible, and if the owner showed no inclination to buy a coal stove he was given the balance of his year's ration.

Of the 19 such rations included in this study, only two are known to have converted, although some others did not ask for the balance of the year's ration. Fif-

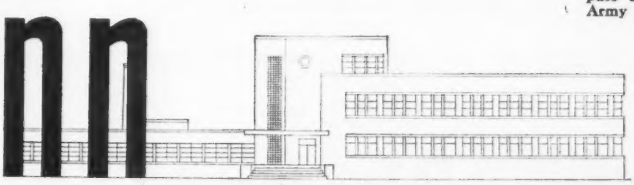
Every one of us at the Penn Electric Switch Co., is wearing the Army and Navy "E" today—and a beautiful new pennant floats with the Star Spangled Banner and the Minute Man flag above our plant.

For this recognition of our work in producing lighting and firing circuits for navy guns, periscopes for army tanks, and gun-firing solenoids for navy planes, we are grateful.

We see in this more than an award for past achievement. It is a challenge to continued and increased effort. To meet that challenge all of us have pledged our unremitting effort ...to support with our labors the men who fight our war... to keep the "E" flag flying... to dedicate our special skills and our production facilities to complete and final Victory.
Penn Electric Switch Co., Goshen, Indiana.

ARMY-NAVY "E" BADGE OF HONOR
is worn by all Penn employes, as a reminder of our pledge to surpass the record for which the Army and Navy "E" was given.

PENN



AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, ENGINES, PUMPS AND AIR COMPRESSORS

Fuelfoil & oil heat

teen of the 19 are complete with past history and floor area. Characteristics are:

Average Floor Area	460 sq. ft.
Average Previous Consumption	556 gal.
Average Ration, Including Extras	269 gal.

MISCELLANEOUS USES. Most of these users were given the same amount they used last year. However, out of the 16 in this study, the two largest ones have converted to coal, under pressure from the board. One of the two used 10,000 gallons for bottle washing (ginger ale) and the other, the local incinerator, had used 8,950 gallons.

Other uses, not converted, include bakery ovens, tractors, road lanterns, brooders and incubators, a steam generator for tire recapping, diesel for PT boats, insecticides, etc.

OBSERVATIONS. Most applicants for domestic heating rations failed to include the floor area of closets. Only 24% included them; 76% did not. This is the fault of the ambiguous wording in the application form; most folk thought they had to leave them out. But it is an unfair situation, for closets will bring to the average house an additional 50 to 100 gallons.

A great many applicants fail to put the date on the form. This again is the fault of the form, for the date line is too far down the page, too near the "do not write here" section. Of the 500 ration applications, 141 omitted the date. That was particularly serious at the start of the program in the mixup over whether to use the October or the November inventory. If there was no date, someone had to make a guess.

A large percentage of the applications did not have all questions answered. On Form 1100 the questions most disregarded were numbers 4 and 5. On Form 1103, many did not answer 7 and 8. The board was too busy to check back on these, so disregarded the omissions.

Only two of the 500 users found it necessary to arrange for advance use of coupons. One householder got 50 gallons of No. 5's exchanged for 4's and one apartment owner had 600 gallons exchanged in the same way. It is reported, however, that in a few instances dealers accepted coupons before their valid dates.

Two of the users accidentally burned their coupons, reported that they provided very little heat.

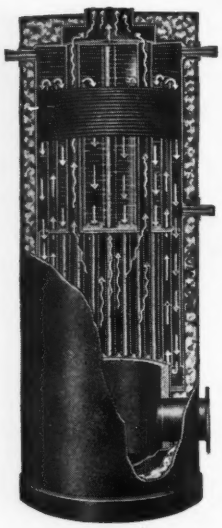
OHI Accessory Group Reelects Officers

MEMBERS OF THE ACCESSORY Division of Oil-Heat Institute of America reelected Alexis Doster, Torrington Mfg. Company, and William A. Kemp, Sundstrand Machine Tool Company, as chairman and vice-chairman, respectively, at its annual meeting in New York, March 8. Malcom Henning, Penn Electric Switch Company, was named secretary, succeeding C. F. Curtin, secretary of O.H.I., who finds it impractical to act for both groups.

In addition to the officers, members of the planning committee were reelected with two exceptions. George Cage (Detroit Lubricator) resigned from the committee, and was replaced by T. A. Murphy (Monarch). Robert A. Bell (Rajah) replaced Mr. Curtin on the planning committee. Other members, all of whom were reelected, are Paul Addams (Fitzgibbons), E. M. Ford (Webster), J. K. Luthe (Perfex), E. N. McDonnell (McDonnell & Miller), Arnold Michelson (Minneapolis-Honeywell), Gray Tuthill (Tuthill), J. W. Owens (Mercoid), and V. K. Smith (Ohio Electric).

SHEPHARD PERCOLATING BOILERS

"BUILT LIKE A BATTLESHIP"



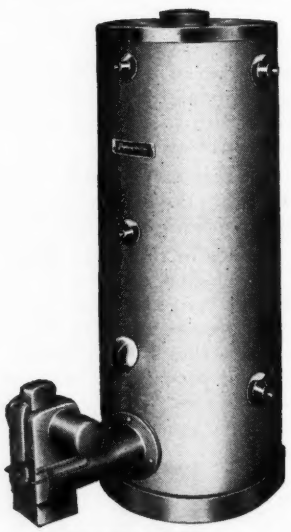
Cross section shows the fuel-saving percolating action.

DOMESTIC HOT WATER HEATERS
HOT WATER BOILERS
STEAM BOILERS
AUTOMATICALLY CONTROLLED
STREAMLINE BEAUTY
SERVICING REDUCED TO MINIMUM
ENGINEERED FOR GUN TYPE OIL BURNERS
USE LOW PRICE NO. 3 OIL OR
PACIFIC COAST DIESEL OIL
HEATS 22 GALLONS WATER FOR A PENNY

All Units Available Both With and Without Oil Burner and Controls.

WIRE, PHONE OR WRITE FOR FOLDER AND PRICE LIST

The New Home of



Attractively finished in any desired color, with striking chrome trim.

SHEPHARD HEATER CO.

6624-36 SOUTH PARK AVENUE CHICAGO, ILLINOIS

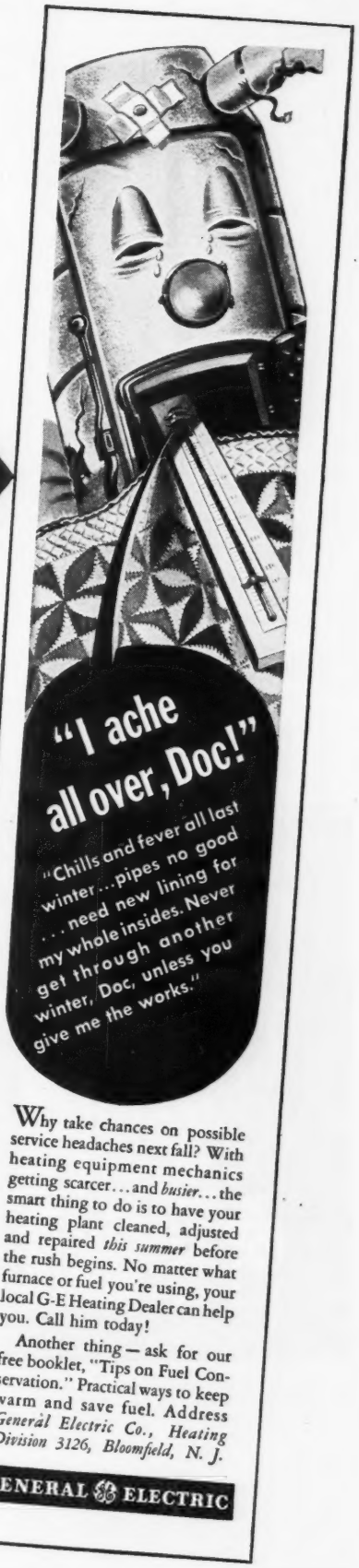
To help G-E Dealers this summer – and after the war

At the right, you see the second of several G-E advertisements urging home-owners to have their heating plants checked, cleaned, repaired this summer. This message will appear in June issues of *American Home* and *Better Homes and Gardens.*

It tells home-owners to call *G-E Dealers* for this service—no matter what fuel or what make furnace they use. This should help you in two ways:

1. To get *extra* service business during the slack summer months (instead of all at once next fall);
2. To put you in touch with good prospects for new G-E heating equipment after the war.

We believe that this is a practical way to help G-E Dealers meet war-time conditions. As soon as the present heating season ends, go out after servicing business. It's not too early to start lining up prospects right now! *General Electric Co., Heating Division 3484, Bloomfield, New Jersey.*


"I ache all over, Doc!"
"Chills and fever all last winter... pipes no good ...need new lining for my whole insides. Never get through another winter, Doc, unless you give me the works."
Why take chances on possible service headaches next fall? With heating equipment mechanics getting scarcer... and *busier*... the smart thing to do is to have your heating plant cleaned, adjusted and repaired *this summer* before the rush begins. No matter what furnace or fuel you're using, your local G-E Heating Dealer can help you. Call him today!
Another thing — ask for our free booklet, "Tips on Fuel Conservation." Practical ways to keep warm and save fuel. Address *General Electric Co., Heating Division 3126, Bloomfield, N. J.*
GENERAL ELECTRIC

GENERAL ELECTRIC

fuel oil & oil heat

Firewood Shortages Increase Coal Demand

CITING REPORTS of sharp reductions in the production of fuel wood that threaten to increase substantially the demand for coal next winter, Solid Fuels Coordinator for War Harold L. Ickes has urged fuel wood cutters to take immediate steps to raise their output wherever possible.

Coordinator Ickes said that the Forest Service of the Department of Agriculture has informed his office that cutting of fuel wood has fallen below the normal peacetime rate in some sections and that a considerable part of current production is being used now instead of being stored for next winter. The decreases were attributed largely to labor shortages.

Designating the situation as critical in three important regions, the Forest Service told the Solid Fuels Coordinator's Office that if fuel wood production falls 25 per cent below normal in those areas, 1943 output will be 6,075,000 cords short of meeting ordinary needs. It estimated this loss as the equivalent of 4,556,250 tons of coal. Furthermore, a probable increase in wood needs to replace fuel oil in regions where oil users can convert to wood is not included in these figures.

The three regions of reported greatest production deficiencies are the Northeastern and Middle Atlantic states; the far Western States of Washington, Oregon, California, Montana, and Idaho, and the Lake states of Minnesota, Wisconsin, and Michigan. Fuel wood consumption in 1941, considered an average pre-war year, was estimated by the Forest Service at 26,300,000 cords in the three areas. Current production, assuming a 25 per cent drop under normal, would be about 20,225,000 cords, it was reported. The Service had estimated requirements in the areas this year at 30,700,000 cords.

"In communities where it is a primary fuel, wood shortages would impose a severe additional burden upon coal production and transportation next winter," Coordinator Ickes said. "It is essential that enough seasoned wood, cut in accordance with sound conservation policies, be made available to meet the requirements of those areas.

"Where wood is plentiful, it should be used to conserve coal wherever possible. Its local origin saves railroad and other long-haul transportation facilities.

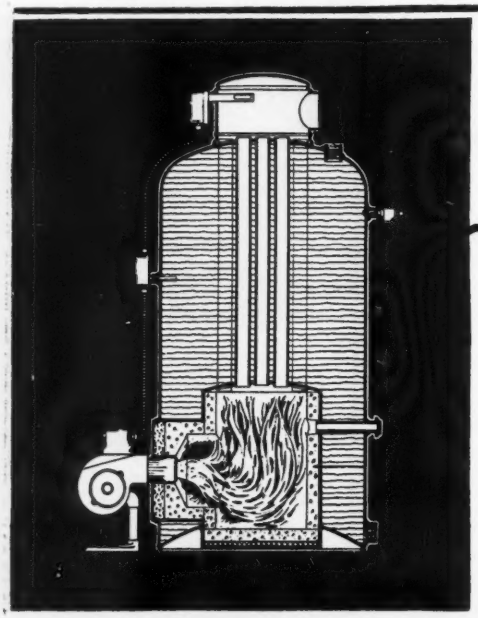
"If the present program is carried out, I believe that sufficient coal can be produced and moved this year to meet the vital requirements of war industries and essential civilian consumers. But any unnecessary increases in local demands should be avoided in the interest of national fuel security."

◈

Petroleum Industry Post-War Planning

STUDY OF THE POST-WAR readjustments of the petroleum industry will be started at once by a newly-appointed group of oil men working under the Petroleum Industry War Council, William R. Boyd, Jr., Council chairman, announced.

Paul Ryan of Cleveland, formerly president of the National Refining Co. and widely-known oil man, has accepted the full-time post as chairman of the working subcommittee and will serve without compensation. The subcommittee's work will be supervised by the Council's committee on petroleum ecoonomics of which Dr. Robert E. Wilson, president



Johnson

gives you more Hot Water from each gallon of Fuel Oil!

Look at these *Efficiency Rating* figures for the Aqulux-225 . . . a typical model of Johnson's heavy duty water heaters:

Stack temp. at full capacity.....400° F.
CO_2.....12% Stack loss.....14%
Efficiency Rating.....80%

Performance like that pays dividends in lower fuel consumption and shorter recovery time. And don't forget . . . this performance is achieved by Aqualux Heaters built to wartime specifications . . . without insulation, galvanizing or jackets, and with a minimum of copper and aluminum.

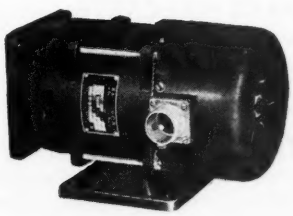
The Army, Navy and essential industries are getting practically all that are now available. But a day of Victory is coming . . . soon, we hope . . . when anyone may have them. When that day comes, you will find we are still carrying on the 40-year-old Johnson tradition of fine engineering and fine workmanship in the building of Oil Burning Equipment. S. T. Johnson Co., 940 Arlington Ave., Oakland, Calif. and 401 No. Broad St., Philadelphia, Pa.

This is our Vertical-self-storage type "Aqulux-225." Other Heavy-Duty Aqulux models include Horizontal, Vertical-Horizontal, Vertical-nominal-storage types.

AQULUX
Heavy Duty
WATER HEATERS

S. T. JOHNSON CO.
40 years of engineering and building fine Oil Burning Equipment

WAR
PEACE
The ingenuity and craftsmanship which supplied the electric motor needs of other years is now all-out to win the war.
A MISSION TO FRANCE
With Presents for the Axis
PAGES FROM AVIATION'S HISTORY . . .
Parallel Performance
CARRIER PERFORMANCE-PROVED "WEATHERMAKERS"
EMERSON PERFORMANCE-PROVED MOTORS
ACCURATE
.00025 of One Inch.
Parallel Performance
More and more raids like this are demonstrating
Nations' Air Forces . . . Timed to a split-second, bombs
many an Axis menace to our ocean transport.
is accomplished through perfect
skilled hands of pilots and bom-
trols, each instantly and depend-
the operation.
TURING COMPANY
Davenport • Los Angeles



No! You Have Never Used An Electric Motor Like This

This is one of many designs developed by Emerson-Electric for United Nations Aircraft.

Down through the years Emerson-Electric motors have been selected to furnish the motive power for many of the finest products of nationally known manufacturers.

Today . . . a line of entirely new and specially designed Emerson-Electric Motors is paralleling the brilliant performance of United Nations Aircraft.

'After Victory". . . the experience gained in war production will be added to Emerson-Electric's 53 years of accomplishment and devoted to meeting the new-day demands of electrical appliances and equipment.

THE EMERSON ELECTRIC MFG. CO. • ST. LOUIS

Branches: New York • Detroit • Chicago • Los Angeles • Davenport

EMERSON ELECTRIC

MOTORS • FANS • APPLIANCES • A. C. ARC WELDERS

fueloil & oil heat

of Pan American Petroleum and Transport Co., New York, is chairman.

"Mr. Ryan brings to this job a wealth of experience in both the technical and managerial sides of the oil industry," Mr. Boyd said, "and we are confident that his committee's work will materially help the industry in thinking ahead about post-war readjustments that may be necessary.

"As announced last month, our War Council believes that no basic industry can afford to overlook the necessity for analyzing and endeavoring to predict the economic conditions which are likely to prevail after the war, and for working out plans to help solve the problems. However, we do not agree that the American people after the war will have become habituated to regimentation and we believe that the future of the country can best be assured by relying on individual initiative and competitive enterprise."

Twelve members already have been appointed to the subcommittee, and others will be added soon to make it representative of all branches and functions of the industry in all parts of the country, and of large and small companies. In addition to Mr. Ryan, members already appointed by Mr. Boyd are: Sidney A. Swensrud, Standard Oil Co. (Ohio), Cleveland, who is vice chairman; Daniel P. Barnard, Standard Oil Co. (Indiana), Chicago; C. L. Burrill, Standard Oil Co. of New Jersey, New York; Thomas G. Elder, National Refining Co., Cleveland; Robert W. MacDowell, Mid-Continent Petroleum Corp., Tulsa; William G. Moore, Gulf Oil Corp., Pittsburgh; George G. Oberfell, Phillips Petroleum Co., Bartlesville, Okla.; T. E. Swigart, Shell Pipe Line Co., Houston; James Tanham, The Texas Co., New York; Eric V. Weber, Eureka Oil Co., Cincinnati; and Ralph Zook, Sloan & Zook, Bradford, Pa.

Bureau of Mines Has Insulation Sound Films

"HEAT AND ITS CONTROL" and "The Story of Rock Wool Home Insulation," two new educational motion picture films in sound, produced under the direction of the Bureau of Mines, United States Department of the Interior, in cooperation with a large industrial concern, are now ready for distribution. The films tell the story of heat insulation as a means of conserving the Nation's fuel supply in homes and industries and thereby contributing to our war effort.

The motion picture, "Heat and Its Control," emphasizes the importance of controlling heat and the many roles heat plays in present-day life from driving locomotives and turbines to changing the structure of ores and metals. In contrast, the destructive power of unharnessed heat is depicted by the seething lava of the volcano and the desert wastelands. From a historical standpoint, the film pictures the worship of sun and flame in bygone years and the research by James Watt, who perfected the steam engine.

By animation, the picture then describes the three methods of heat transfer. In this series, coal or oil are transformed into heat, steam is created and the heat energy is shown passing to boiler tubes by radiation and convection and through the tube walls by conduction.

The heat-loss due to lack of insulation is described in detail and the manufacture of magnesia insulation then is shown. This pictures the calcination of dolomite in

KEEP THEM FIRING!

Fig. F-80

Dealers: It's up to you to keep every oil burner in operation for the duration with a *minimum* of new material. New Nozzles are still available on A-10 ratings but you should take good care of those already in service.

Don't:

1. Clean orifices with needles, pins, etc.—A tiny scratch will ruin the spray. Use sharpened toothpicks.
2. Remove hard carbon from the slots of the disc or inside the nozzle with pointed metal objects or files—a damaged seat or imperfect slot means another nozzle for the scrap. Use a soft brass wire brush and wash all parts thoroughly before assembly.
3. Carry service nozzles unprotected and jumbled together in a box—sharp corners will nick the orifices. Keep them in individual cartons or in a Monarch Nozzle Service Kit.

Do you have our Catalog D?

MONARCH MFG. WORKS, INC

E. WESTMORELAND AND SALMON STS. PHILADELPHIA, PA.

J-M REFRACTORIES

for Oil Burners

★ **J-M STANDARD FIRECRETE,** for poured linings, handles as easily as ordinary concrete. Will not shrink, crack or disintegrate. Ideal for rotary-burner hearths, precast shapes for water heaters, burner heads, bottoms, etc.

★ **J-M HELLITE,** for bonding, is ideal for laying firebrick with thin joints, wash-coating and patching old linings. Settings are strong and permanent. Comes ready-mixed, works easily, sets without heat.

★ **J-M FIREITE** for sealing, is an asbestos furnace cement that effectively seals clean-out doors, flue pipes and other furnace parts. Supplied ready-mixed, it is easily worked and applied. Adheres tightly to castings, sheet metal or any other clean surface. Air sets without heat.

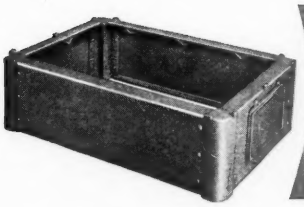
For any oil burner service these J-M Refractories give long satisfactory service with practically no attention or maintenance. Available through your local distributor.

JM JOHNS-MANVILLE

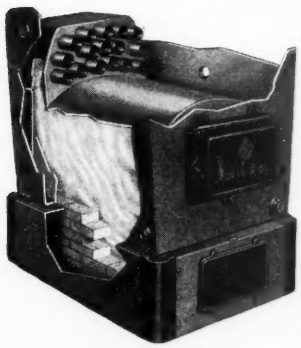
22 East 40th Street, New York, N. Y.

KEWANEE

83-"R" STEEL BOILER



1 To start with, the 83-"R" has a steel base with corner posts so stout the boiler can stand firmly on its own four feet. The base pictured is for mechanically fired fuel.



2 Then the fire-chamber is extra high and roomy to give the flame a chance to mix with more oxygen and burn the fuel completely.

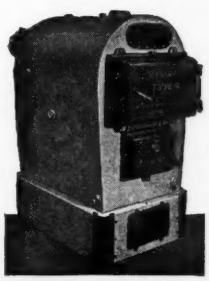
3 LONG GAS TRAVEL INSURES USE OF ALL AVAILABLE HEAT

Steel is so strong yet ductile that the boiler design is not stilted by limitations of the metal structure. Hence it is possible to get *exact proportional balance* between grate area, combustion space, heating surface, water content, steam space and other technical requirements for highest efficiency.

Kewanee 83-"R" is designed not only to burn its fuel completely . . . but to use the heat so created in heating the building. That's equally important in putting into practical use those uncommonly high boiler efficiencies of 80% plus.

The hot gases travel from the fire chamber to the rear of the boiler . . . then forward through the lower bank of tubes . . . then to the rear through the upper bank of tubes . . . *actually a "triple pass"* which transfers all the usable heat to the water in the boiler.

Stick a stack thermometer in the flue gases leaving a Kewanee. Note the low temperature compared with most heating boilers. That's proof that a Kewanee *uses its heat,* instead of wasting an undue portion up the stack.



ANOTHER TIMELY FACT

Regardless of type or size any Kewanee can be quickly converted from Oil to Coal and back again without changes in the boiler proper.

KEWANEE BOILER CORPORATION
KEWANEE, ILLINOIS
Branches in 64 Cities—Eastern District Office:
40 West 40th Street, New York City
Division of AMERICAN Radiator and "Standard" Sanitary Corporation

vertical kilns, slaking in water, precipitation of magnesium carbonate by boiling, addition of asbestos fiber, molding, drying, trimming and cutting to size. Also described is the fabrication of rock wool insulation from solid rock and the steps of charging the cupola furnace, reducing the charge to white heat, pouring the molten material upon a blast of high-velocity steam which rends the material into fine strands of thread-like fibers which cool and solidify. Use of this finished material in homes and in industry then is illustrated.

Another portion of the film shows the process of fabricating asbestos into paper. Here the milled asbestos fiber is mixed with water formed into sheets and dried. Next, the motion picture describes the mining of diatomite and the manufacture of bricks for insulating furnaces. This process is traced from the quarrying of the raw material to the firing of bricks in a tunnel kiln. Closing scenes show uses of insulation in covering boilers and for lining rotary kilns and its importance to the petroleum and iron industries.

The second sound motion picture, "The Story of Rock Wool Home Insulation," describes the problems encountered by a young couple who have been offered a drafty house as a wedding gift. While the man and woman are debating the advisability of accepting the offer, a friend tells them the structure can be made comfortable by adequate insulation. Of interest to every home owner is the description presented regarding the cause of draft and loss of heat due to lack of insulation.

A replica of a single wall space is shown and this is subjected to temperature changes encountered during winter and summer. In the film, the friend describes adverse conditions which result from uninsulated walls during warm and cold seasons and suggests rock wool as the best insulating material for his friends' dwelling.

Rock Wool Manufacture

Succeeding scenes show the manufacture of rock wool insulation. The product is manufactured into nodules for houses already built and into bats for new homes under construction. Other portions of the motion picture show a building being insulated with rock wool by the pneumatic method in which rock wool nodules are blown into every open space in walls, around conduits and switches, around window frames and elsewhere to form a protective blanket.

Copies of these films, in 16-millimeter sound, are available for exhibition by schools, churches, colleges, civic and business organizations and other similar groups. Applications for the films should be addressed to the Bureau of Mines Experiment Station, 4800 Forbes Street, Pittsburgh, Pennsylvania, and should state specifically that the borrower is equipped to show sound films. No charge is made for use of the films, but the exhibitor is expected to pay transportation charges and for loss or damage other than normal wear.

Dust-Stop Filter Plans Consumer Advertising Tie-In

OWENS-CORNING FIBERGLAS Corporation's 1943 plans for Dust-Stop air filter advertising comprise a unified program aimed at assisting dealers to capitalize on the potential demand in this field.

Backing up the dealer's own sales efforts, Owens-Corning will provide a variety of dealer sales helps and will conduct a national consumer advertising campaign, with a schedule calling for insertions in a group of nationally circulated publications selected to reach a maximum number of homeowners.

Copy will point out that the fuel shortage makes it doubly imperative that furnaces be operated at top efficiency, both from the standpoint of the national welfare and the householder's own comfort. The role played by air filters in forced-warm-air furnace operation will be spotlighted, as will the importance of changing filters at sufficiently frequent intervals to prevent clogging and enable them to play their role in top form.

A series of full-page Dust-Stop advertisements is scheduled for dealer publications. With an estimated replacement market of $6,500,000 in 1943, the copy will stress the potential demand for Dust-Stop filters, will emphasize the need of giving attention to filters as an important part of the heating plant, and will feature the big program of national advertising and dealer helps.

Another part of the copy theme will be the opportunity a dealer has to sell Dust-Stops while performing other services necessary to keep heating equipment at top efficiency. The point will also be made that the war-time Dust-Stop contains no materials now listed as critical, and that adequate supplies are available.

Gilbarco Gets Second Army-Navy "E" Award

GILBERT & BARKER MFG. CO., West Springfield, Mass., maker of oilheating and air-conditioning equipment, has been notified by Robert P. Patterson, undersecretary of War, that the company has won the Army-Navy production award for the second time. To designate this achievement a white star has been added to Gilbert & Barker's "E" flag.

Servicemen, meet your

STAR SALESMAN

Here's a man who's done a whale of a lot to bring in your money-making service calls . . . Hugh James, Sunoco announcer for Lowell Thomas!

For months, Hugh has been telling millions of home owners to "consult your neighborhood oil burner service man if you want to get the most out of your burner!"

Yes, time and time again, Sun Oil Company has put the full power of its tremendous Lowell Thomas broadcasts behind you and your business. These days both of us are working for Uncle Sam, conserving precious oil — and Hugh James is working for you!

SUN OIL COMPANY, PHILADELPHIA

P. S.—Would you like to read our new free book, "HOW TO SAVE OIL, HEAT AND MONEY?" — just drop us a line!

SUNHEAT FURNACE OILS

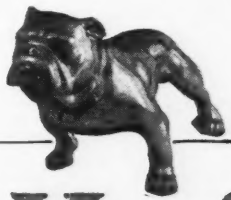
SUN OIL CO., PHILADELPHIA

Of every 10 Mack trucks built ten years ago—7 are still doing duty! Here Peter Helck sketches a "baby Mack" at dock-side.

ITS MIDDLE NAME IS . . . WORK!

Today's Mack trucks range in size from tough little one-tonners to the biggest Prime Mover in Uncle Sam's Army. But big or little—if its last name is Mack, its middle name is *work!*

For 43 years, the world has watched the way Mack trucks wade into the toughest jobs in trucking. That is why the phrase "Built like a Mack truck" is a part of our language.



Mack

TRUCKS

FOR EVERY PURPOSE

ONE TON TO FORTY-FIVE TONS

BUY U. S. WAR BONDS

Mack Trucks, Inc., Long Island City, N. Y. Factories at Allentown, Pa.; Plainfield, N. J.; New Brunswick, N. J. Factory branches and dealers in all principal cities for service and parts.

IF YOU'VE GOT A MACK, YOU'RE LUCKY . . . IF YOU PLAN TO GET ONE, YOU'RE WISE!

Fueloil & oil heat

General Electric Sets Up Product Service Division

PRODUCT SERVICE becomes a Division of General Electric Company's Appliance & Merchandise Department, and L. H. Taylor is appointed manager of this Division, it is announced by H. L. Andrews, vice president in charge of A. & M. Dept.

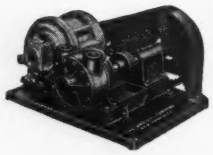
The establishing of Product Service as a Division is proof that service has earned a more important place than ever before in the A. & M. organization. It reflects the success with which General Electric's product service men have used the knowledge gained in pre-war field experience to help distributors and dealers keep the millions of America's appliances in working condition for the duration. By setting up factory-operated Appliance Service Centers in key areas to make parts and service accessible, by offering complete packaged training programs to distributors for the training of service men in key cities, and by a definite, well planned overall program for identification of qualified servicing dealers and continued assistance for them, the product service organization has earned its Division status.

Product Service of the appliance divisions at Bridgeport, and of the Air Conditioning and Commercial Refrigeration divisions at Bloomfield, become sections of the newly created Product Service Division. Mr. W. C. Noll, Bridgeport, and Mr. R. U. Berry, Bloomfield, continue as managers of these respective sections, the announcement states.

WHY EXPERIMENT?

Kraissl Products Offer Proved Performance

Kraissl Class 60 heavy oil pumps



known and used as standard equipment for many years wherever independent pump and motor sets are required and as booster pumps for pump type burners.

Kraissl Class 72 Strainers and Filters

Single and duplex types for suction and discharge service. Any practical degree of filtration. A necessity on every fuel oil line to protect pumps and burner nozzles. Available for low pressures as well as high pressures up to 500 pounds hydrostatic test.

Kraissl-Trumbull #522 Fuel Pump Unit

for gravity type oil burners having a burning capacity of not more than 3 gallons per hour. A rugged, dependable, wall pump approved by Underwriter's Laboratories, Inc.

Write for literature and dealers prices.

THE KRAISSL COMPANY
INCORPORATED
295 WILLIAMS AVENUE
HACKENSACK, NEW JERSEY

Six Zone Offices for PAW Are Opened in District One

DEPUTY Petroleum Administrator Ralph K. Davies has announced that sub-offices of the Petroleum Administration for War have now been established for the six District One zones into which PAW has divided the Atlantic Seaboard area.

The sub-offices and the various marketing representatives are as follows:

ZONE ONE (New England States)—For Massachusetts: Gerard R. Torborg, 17 Court Street, Boston, Massachusetts, Telephone—Lafayette 3131; for Maine, New Hampshire, and Vermont: Reed Prouty, Room 417, 142 High Street, Portland, Maine, Telephone—Portland 3-2865; for Connecticut and Rhode Island: John H. Schoonmaker, 119 Ann Street, Hartford, Connecticut, Telephone—Hartford 7-2641.

ZONE TWO (Delaware, New Jersey, and those parts of New York and Pennsylvania lying East of and including the counties of Cayuga, Tompkins, and Chemung, in New York), and Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, and York (in Pennsylvania): Ovel Lee Gregory, Jr., 122 East Forty-Second Street, New York, New York, Telephone—Lexington 2-4100.

ZONE THREE (Maryland, Virginia, and District of Columbia)—John O. Blakely, 1254 O'Sullivan Building, Inc., Baltimore & Light Streets, Baltimore, Maryland, Telephone—Lexington 0228.

ZONE FOUR (North Carolina and South Carolina) and ZONE FIVE (Florida and Georgia)—Forest J. Parks, 116 Candler Building, Atlanta, Georgia.

ZONE SIX (West Virginia and those parts of New York and Pennsylvania not included in Zone Two)—William M. Horigan, 706 Benedum-Trees Building, 223 Fourth Avenue, Pittsburgh, Pennsylvania—Atlantic 0862.

Timken Consumer Ads Talk Post-War Homes

IN AN EFFORT to stimulate long-range interest in better homes, in a competition for the post-war dollar, Timken-Silent Automatic Div., Detroit, is using currently large display advertising space in the larger consumer magazines.

The homes pictured and described are of the functional modern school and while for the moment they may be on the extreme side, they nonetheless attract attention and comment. When peace returns, will the average consumer first buy a car or make a trip to California or perhaps invest his savings in building a new home? New-home appetites developed now will bear post-war fruit.

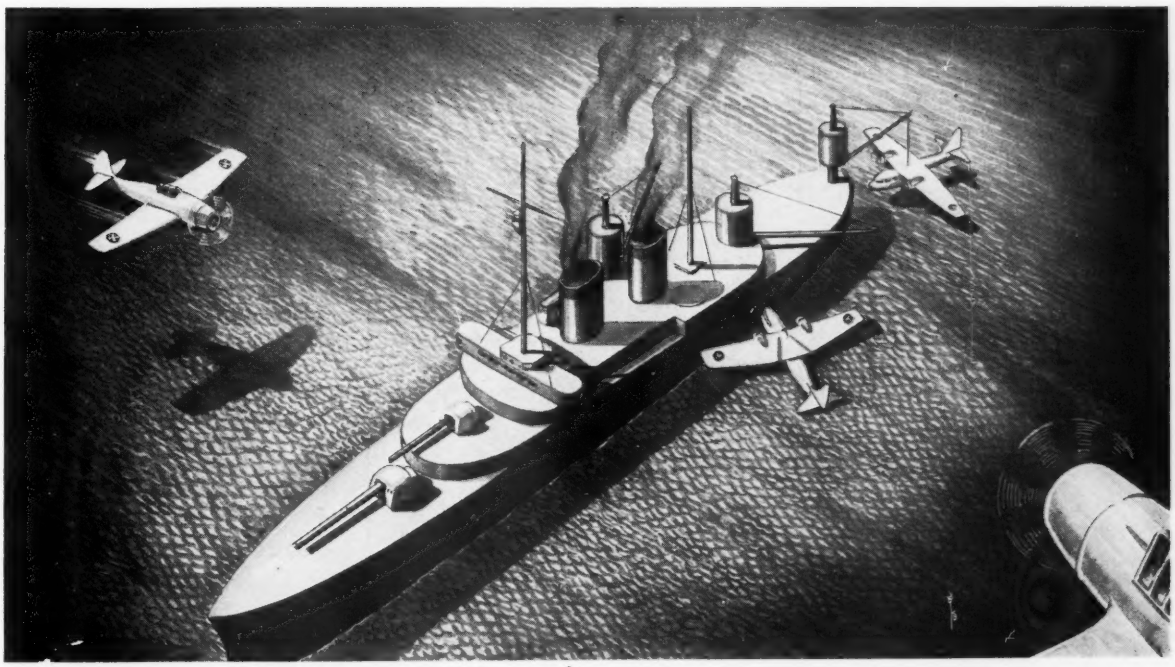
In a recent issue of "Timken Heat," the company's house organ, appeared a useful study of characteristics of present Timken oilheating users. Based upon more than ten thousand replies, these facts were established:

The average Timken heated home has eight rooms and is occupied by four persons. Divided into types of heating plants, 41% have hot water heat, 30% warm air and 29% steam. The average oil consumption, pre-rationing, for heat and hot water was 1,790 gallons.

Supplying year-round hot water are 34% of the Timken installations, with an additional 8½% supplying hot water in the heating season only. On conversions from coal to oil, the average user burned 153 gallons for each ton of coal previously burned.

Equipped with storm windows are 68½% of the homes; with weatherstripping 60% and with wall or ceiling insulation 44½%.

HOME PLATE FOR FLYING HUNTERS



THE HUNT GOES ON—day and night — for the enemy that haunts the sea lanes.

To keep the sea planes in the air—far from shore—our Navy has developed a group of sea plane tenders—a home plate for flying hunters.

These tenders repair and refuel the planes—furnish the pilots with a warm bed and plenty of hot water for bathing. They arise refreshed and ready to fly again. This vigilance has paid dividends in lessening the ship sinkings off our coasts.

Heat and hot water on the sea plane tenders is provided in part by York-Heat — evenly and continuously. The coldest night at sea is turned to Florida-like warmth on board these flying ports.

York-Heat is proud to be the manufacturer of this oil heating equipment for our armed forces—on the land and on the sea. Precision manufacture and steadfast dependability have made them specified equipment for our foreign legions.

The oil heating equipment you need for your trade is going into war uses such as this. Until the war is won your customers must wait. Then and then only can we again return to the manufacture of the finest oil heating equipment made . . . units you will be proud to sell and service. On our drawing boards and in our testing laboratory these units are taking shape and breaking all past records for performance. We are just as anxious as you to put these new units on the market . . . but now we must do our part to speed the victory.

OIL HEATING EQUIPMENT BY YORK-HEAT

YORK OIL BURNER CO., INC. YORK, PA.
A SUBSIDIARY OF THOMAS SHIPLEY, INC.

fuelfoil & oil heat

Reader Helps Interesting and Valuable Books and Reprints

1941-1942 SPECIFICATIONS BOOK OF OIL BURNERS AND FUELOIL

Gives specifications for 2200 models and makes of burners by 237 manufacturers. Gives grade of oil officially specified for each burner, method of atomization, air source, ignition data, oil feed, gph rating and motor size.....**50c**
(Bulk purchase prices on request.)

"Herkimer Service Manual." Now you can buy this famous manual. It is a complete service and installation guide for oilburners, gas furnaces, and stokers written for the expert as well as the beginner. It is distinguished as the basis of the Herkimer Institute courses.....**$4.00**

"Oilheating Handbook," by Han Kunitz. Newly revised edition. Clear and concise explanation of oil burner systems and classification. Discusses combustion and heating problems, surveys, installations and retail selling **$3.50**

"Herkimer Coal Burner & Stoker Manual." Covers installation procedure. Also detailed explanation and remedy for 18 common trouble complaints with many subheads under each title. Includes a double-page stoker complaint and trouble diagram. This is a highly valuable tool for dealers and service men to use on the job. Prepared by practical men from regular daily experiences. 40 pages. Pocket size. Black, heavy paper cover....**$1.00**

"Degree Day Handbook." Useful for computing oil consumption by the degree day method....**$3.00**

BEACON BOILER REFERENCE BOOK

Contains 7116 listings of boilers and boiler-burner units up to 2,000 sq. ft. steam and equivalent hot water—new, old and obsolete. Complete ratings and specifications on 195 makes, 412 trade names. Particularly valuable regarding old and obsolete models. Gives model number and name, rating, firing rate (coal and oil), heating surface, firebox dimensions, floor to crown sheet, grate size, floor area, base height, chimney dimensions, smoke pipe diameter and whether boiler is steel or cast iron. Also, name and last known address of manufacturer and indication of whether the model is obsolete, or when it was made. 554 pages. Handy size for desk or brief case. Sturdy binding....**$3.00** per copy; **$3.25** if sent C.O.D.

PRACTICAL OIL BURNER SERVICE

64 pages of the best articles published in AIR CONDITIONING & OIL HEAT during recent years. Excellent if you want to increase your service business during the war. Many topics covered. How to balance steam systems, increase efficiency, test units, baffle boilers and furnaces, adjust burners, figure combustion chambers, calculate stack loss, etc. **$2.00**

"Oil Fuel in 1960?" .....**10c.**

"Short Cuts to Heat Loss Data." When you're figuring heat loss you can save time by using this accurate, easy method getting fast results without lengthy figuring. **25c.**

KNOWING THE A TO Z OF CO_2

This invaluable booklet shows you how you can test your customers' burners by modern methods obtaining a high CO_2 rating and a low stack temperature. Be efficient and use this up-to-date booklet in your service work.....**$1.00**

SERVICE ON ALL MAKES OF OIL BURNERS

This book is essential in your repair and service work. Gives 10 detailed analyses of the most common basic service problems and shows you how to solve them efficiently **50c**

REDUCING FUEL OIL BILLS

This amazing booklet will help you show homeowners, in a language they can understand, how you can save them money. Minimize your customers' oil bills and make a real profit with the right kind of service **50c**

"Oilburner Combustion Chambers." Complete and concise study, illustrated with charts, illustrations and reference tables. Text covers both precast and those built on-the-job. 23 pages.....**50c.**

"Selling and Handling Fueloil." A 32 page booklet covers fueloil distribution from bulk plant to customer's tank. Covers planning and operating bulk plants, operating tank trucks, selling fueloil, specifications and variables, automatic deliveries, etc. .....**50c.**

Because of the thousands of small orders we receive, we ask that cash, stamps, money orders or checks be sent with all orders. If you wish to order C.O.D., an extra charge of 10% is made to cover shipping and collection fees.

FUELOIL & OIL HEAT • 232 MADISON AVENUE NEW YORK CITY, N. Y.

Fueloil Non-Heating Cut Removed April 1

THE ORDERS RESTRICTING consumption of fueloil for non-heating purposes by commercial and industrial consumers and governmental agencies in the Eastern area will be allowed to expire April 1, according to PAW.

The restrictions were contained in PAW Distribution Order No. 3 and OPA Amendment 29 to Ration Order 11, and provided that such users, other than the most essential, take a 40% cut. Most such rations, issued quarterly, came up for renewal on April 1.

◈

Shephard Heater Co. Moves to Chicago

IN ORDER TO BE NEARER to sources of supply, the Shephard Heater Co., manufacturers of water heaters, has moved from Watseka, Ill. to Chicago. Now in a larger, well-planned factory, the company is able to extend the scope of its services to oil-heating men, according to John Shephard, president.

◈

J. G. Jordan, formerly Cleveland division manager for Shell Oil Co., has been appointed manager of retail sales for the West Coast territoy, with San Francisco headquarters, according to P. E. Lakin, vice-president in charge of marketing. *R. D. Kizer,* formerly in charge of the Detroit division, succeeds Mr. Jordan as acting manager. Mr. Kizer, in turn, is succeeded at Detroit by *John Southworth,* who has been West Coast manager of light oil sales.

James R. McCallum has joined the engineering staff in charge of the laboratory of Airtemp Div., Chrysler Corp., Dayton, according to an announcement by Allen P. Livar, chief engineer. McCallum was formerly in the company's Detroit laboratory, specializing in the development of heat transfer equipment.

Carl H. Flink has been appointed technical secretary of the American Society of Heating & Ventilating Engineers. Flink will supervise coordination of technical committee work and assist in the compilation of codes and standards.

Mass. Oil Heating Ass'n, at its regular meeting March 16 at Boston's Hotel Lennox, had as principal speakers Col. Thomas F. Sullivan, state emergency fuel conservator, and Dr. Tehyi Hsieh, who spoke on China.

George R. Atkins has been named manager of the Akron, Ohio, branch sales office and factory of the Bristol Co., Waterbury, Conn.

Lounsbury S. Fish is to be director in charge of the new Organizational Planning Staff of P.A.W., Washington.

William S. Newell has been elected a director of Mack Trucks, Inc., according to Louis G. Bissell, board chairman. Newell is president of Todd-Bath Iron Shipbuilding Corp. and president of Bath Iron Works.

Fred W. Balderson, office manager of the Minneapolis-Honeywell Regulator Company's Philadelphia branch, died February 20, aged 32.

U. S. Department of Labor announces agreement on 40¢ minimum wage for cooking and heating appliance mfrs.

A Help to Steamfitters

Never before has so much information about Radiators been gathered in one booklet. Here are its contents:

1. Tables of ratings of all current sizes of Slenderized Radiators
2. Tables of ratings of all current sizes of Radiant Radiators
3. Tables of ratings of Tube Type Radiators
4. Ratings of all obsolete sizes of Slenderized Radiators
5. Ratings of all obsolete Tube Type Radiators
6. Ratings of all old style column Radiators—also A table giving radiator tappings for all types of systems and roughing-in-dimensions.

Send for Your Copy at Once

BURNHAM BOILER CORPORATION

Irvington, N. Y. — Dept. O.

Zanesville, Ohio — Dept. O.

Burnham Boiler

Insurance Underwriters Urge Caution With Stoves

CONCERNED OVER INCREASED fire hazards when stoves are used as auxiliary heating in homes where occupants have had little or no stove experience, Glen Cove Underwriters, a fire insurance company of Glen Cove, N. Y., has issued an interesting booklet, "Keep Warm in Safety."

President of the company is Robert Bushnell, who is also a member of the local war price and rationing board. Seeing stove rations issued to people who had never before used one, Bushnell was sufficiently concerned to have the booklet made and widely distributed.

Over 20% of all fires, says the booklet, are caused by heating devices, even in normal times. With temporary, and often makeshift, installation it is reasonable to assume that this figure will be increased unless extreme care is used.

Whether a home is burned down from the improper and careless use of such auxiliary heating devices or from an incendiary bomb, the result is the same. Is a cellar any better to live in because the house was bombed instead of burned? Probabilities of fire from these temporary heating devices are, on the average, greater than the probabilities of a hit from an incideniary bomb in most regions of this country.

It is difficult now and may become impossible to secure building materials and other heating equipment as time goes on. The War Production Board has limited the amount and type of repairs that may be made. Permits are necessary in most cases. Violators of Conservation Order L41 restrictions will be taken to court. Great care should be exercised in the use and installation of any such necessary heating devices.

The following rules will help to reduce the fire hazard for the particular device referred to, but in addition to observing these strictly, it should be remembered that nothing will replace constant care when these temporary heating units are used:

Coal Stoves

All burnable material (and practically any material in the house will burn including painted metal objects) must be far enough away so that there will be no danger. Nothing should be within 18 inches of the stove at the sides and rear or within 48 inches in front. If legs are at least 4 inches high the floor beneath should be protected by sheet metal or asbestos board which extends even with it at sides and rear and 18 inches in front. Care should be taken that the stove is in good condition and properly supported. The stove pipe should be tight at all joints, cemented into the chimney and free from any rust spots. It should be at least 18 inches from the ceiling and if passing through any partition should have a hole 1 foot larger in diameter cut around it, or a metal collar extending all the way through the partition which is 2 inches larger in diameter than the pipe. Ashes should be taken out in metal buckets only, and it is preferable to have a metal cover.

Oil Stoves

The precautions for oil stoves are the same as for coal stoves, except that the floor protection need not extend more than even with the stove in the front, and that no ash buckets are necessary. The stoves preferably should have small capacity containers not exceeding three gallons. It is always desirable to buy a stove from a good reliable manufacturer and have one that bears the label of the Underwriters Laboratories or some similar organization. The main oil supply drum should be kept outside away from the house if possible. If kept on the porch, have a very good tight faucet. A metal drip pan such as a pie tin should be placed beneath the faucet to catch any drippings. Oily floors burn readily.

Kerosene Heaters

The small type of portable kerosene heater is extremely hazardous from a fire standpoint. It should not be used except where no other source of heat is available. The heaters should be placed on either a metal or asbestos board as floor protection. No combustible material should be allowed within 18 inches of it at sides and rear and within about 4 feet in front. Before use, heater should be carefully checked and cleaned by a competent man and this procedure should be repeated at least once during the heating season. The main supply of kerosene should be stored outside away from the building if possible; otherwise on a porch. Drums should have tight spring closing spigots and a metal drip pan should be provided to protect any wood surfaces on which drops may fall when filling the cans. Never leave a portable heater in a room unattended. The flame often rises and the heavy oily smoke is damaging to walls and furniture. Explosion may and often does occur.

Gas Stoves

The general rules for coal stoves apply also to the gas ones except that the floor protection need extend only even with the stove in front. Rubber or other flexible tubing connections are dangerous; only rigid pipe connections should be used. These connections should be so located that they will not be subjected to bumping or jolting.

Electric Portable Heaters

While the effect of these is, as a rule, slight in heating a large room, it must be remembered that the temperature in the direct rays thrown off by the reflector is very high. Great care should be taken not to point heaters at chairs, tables, or other furniture or clothing or curtains unless at least 10 feet away. The heater should not be projected against a wall or other partition unless at least 10 feet away. Even with these precautions the unit should be moved occasionally so that these combustible materials do not become too hot. The cords should be watched carefully and the insulation not allowed to become frayed and broken as a short will usually result in a fire. Under no circumstances should cords be strung under rugs. Cords should be disconnected by grasping the plug and pulling, not by grasping the cord itself.

Fireplaces

Make sure the hearth is well cemented and tight. It should be fully protected for a distance of 2 to 3 feet away from the fireplace by using metal or asbestos board if the surface is not cemented, bricked or tiled. A fine mesh screen sufficiently large to cover the entire fireplace opening should be provided to catch sparks and

Looking for

CONVERSION PARTS

for these boilers ?

OBSOLETE MAKES · TRADE NAMES

ACME	LENNOX	
ATLAS	NICO	
BAY STATE	NOVUS	
CENTURY	PHILADELPHIA	
CONTENTO	QUAKER CITY	
CRIMSON FLAME	REX	WESTERN
EASTERN	RIVAL	WINDSOR
ESSEX	SOVEREIGN	WYOMING
IMPERIAL	SUPREME	YUMA

A Reference List of 105 names has been compiled on a handy reference card.
WRITE FOR YOUR COPY

Manufacturers Merged with "NATIONAL"

Continental Heater Co.
Federal Radiator Co.
Gurney Heater Mfg. Co.
Lincoln Niagara Corp.
National Steel Boiler Co.
Niagara Radiator & Boiler Co.
Novelty Iron Co.
Union Radiator Co.
Utica Heater Co.

OBTAIN PARTS FROM

THE NATIONAL RADIATOR COMPANY

Through Wholesalers or our Branches

BALTIMORE, MD. 2622 Matthews St.
BOSTON, MASS. 167 Bridge St. (Cambridge)
BUFFALO, N.Y. 220 Delaware Ave.
CHICAGO, ILL. 400 W. Madison St.
CLEVELAND, OHIO 1246 W. 4th St.
DETROIT, MICH. 5736 Twelfth St.
JOHNSTOWN, PA. 221 Central Ave.
MILWAUKEE, WIS. 759 W. Milwaukee Ave.
NEW YORK, N.Y. 60 E. 42nd St.
PHILADELPHIA, PA. 401 No. Broad St.
PITTSBURGH, PA. 4th & Wood Sts.
RICHMOND, VA. 7th & Main Sts.
WASHINGTON, D. C., 600 "W" St., N. E.

fuel oil & oil heat

UNTIL VICTORY IS WON

Only one thing counts these days and that's to make the Axis boys yell "Uncle!"

It takes all kinds of equipment to back up our fighting men. Even the Tuthill Pumps and Fuelstats that would normally serve in the home are needed at the battlefront.

Until Victory is won, you can look to Tuthill's authorized service stations and the factory to keep your Tuthill equipment repaired or re-conditioned for efficient operation.

TUTHILL PUMPS ARE SERVING ARMY • NAVY • AIR FORCE • MERCHANT MARINE

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

BUY UNITED STATES WAR BONDS AND STAMPS

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Tuthill

TUTHILL PUMP COMPANY

939 EAST 95TH ST. • CHICAGO, ILLINOIS

embers. Before using a fireplace which has been out of service for sometime, the chimney should be cleaned, checked and repaired. Be sure the chimney damper is open before starting a fire. A fireplace radiates rather high temperatures for some distance from it and no furniture, clothes, rugs or other combustible material should be directly in front when subjected to this heat for any length of time.

Ohio Pooling Survey Data Shows Possible 1/3 Saving

UNDER THE DIRECTION of H. T. Ashton, St. Louis, committees of oil men are making detailed investigations of possible savings under pooling of marketing facilities in 19 selected areas in District 2. Although few of these are yet ready for release, results of investigations in two Ohio areas were disclosed to an oil men's group in Columbus, Feb. 11. Pooling of both gasoline and fueloil facilities are contemplated in the probe.

The larger of the two Ohio areas studied was Franklin County, and the month of September 1942 used for the survey, with all petroleum deliveries in the county checked for the month. Total September gallonage was 6,520,000, requiring 143,811 truck miles and the employment of 128 men.

Six methods of possible improvement were evaluated. Method 1-a contemplated possible saving if all dumps had been 2/3 of customer's tank capacity or 2/3 of truck capacity, whichever was smaller. This would have accomplished a mileage reduction from 143,811 to 135,415 and men from 128 to 123.

Method 1-b contemplated all such improvements as individual distributors might have made in their private operations, such as fullest use of largest trucks, better control of routing and other helps. This would further have reduced mileage to 107,614 and men to 93.

Method 2 visualized company cooperation to use the nearest bulk plant for each delivery, but each marketer would use his own trucks. Mileage would have dropped to 90,194 and men to 87.

Method 3 would have exchanged trucks between companies, giving largest trucks to operator best able to use them, etc. No saving was found here.

Method 4-a had in mind partial zoning —no cut and dried plan, but wherever one operator could obviously serve a customer more efficiently than another, he should do it; a case of give-and-take as such situations became apparent. Truck mileage drops to 84,961; men to 76. No further saving was found to be expected from Method 4-b, which covered complete zoning of every account.

Under Method 5, storage tanks now idle in the area would be put to use wherever needed. Mileage reduction to 84,711; no change in number of men.

At this point the maximum saving had been reached. If all methods described had been in effect in September, truck mileage would have been reduced 40% and manpower reduced 41%.

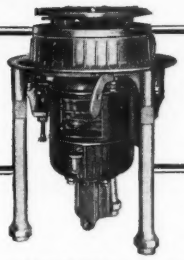
One other method, No. 6, was evaluated but found to offer less saving than the accumulated total of the other five. No. 6 required arbitrary zoning and a completely managed pooling operation directed by a central control. Comparing this with actual operation in September shows that the savings would have been only 15% in truck mileage and 1% in manpower.

DEGREE DAY TABLES

ONE MONTH ONLY					SEASON TO DATE			
	February		Percent		(Sept. 1 to Feb. 28)			Percent
Normal	1942	1943	Change*		Normal	1942	1943	Change*
1174	1237	1144	— 7.5	Albany	4862	4912	5311	+ 8.1
568	690	505	—26.8	Atlanta	2405	2336	2198	— 5.9
844	855	732	—14.5	Baltimore	3413	2993	3275	+ 9.4
1027	1058	967	— 8.6	Boston	4215	4012	4362	+ 8.6
1168	1234	1096	—11.1	Buffalo	4772	4559	4946	+ 7.8
1085	1076	1042	— 3.1	Chicago	4539	4157	4946	+18.9
905	967	824	—14.7	Cincinnati	3806	3519	3759	+ 6.8
1018	1147	1008	—12.1	Cleveland	4249	4196	4521	+ 7.7
445	474	346	—27.0	Dallas	1985	2033	1825	—10.1
900	1138	682	—40.0	Denver	4198	4404	3720	—15.5
1143	1128	998	—11.5	Des Moines	4893	4458	4989	+11.9
1126	1186	1034	—12.8	Detroit	4738	4361	4869	+11.6
1150	1180	1053	—10.7	Grand Rapids	4855	4387	4593	+11.5
1062	1088	1037	— 4.6	Hartford	4425	4354	4639	+ 6.5
1155	1387	1216	—12.3	Helena	5566	6372	6057	— 4.9
253	327	159	—51.3	Houston	1129	1200	984	—18.0
982	1016	932	— 8.2	Indianapolis	4139	3738	4194	+12.2
921	923	738	—20.0	Kansas City	3881	3525	3838	+ 8.8
232	259	174	—33.2	Los Angeles	891	870	757	—12.9
824	891	726	—18.5	Louisville	3432	3262	3376	+ 3.4
1181	1200	1178	— 1.8	Milwaukee	5025	4855	5482	+12.9
1379	1241	1333	+ 7.4	Minneapolis	5981	5254	6322	+20.3
251	348	235	—32.4	New Orleans	1045	1157	974	—15.8
958	991	864	—12.8	New York	3842	3579	3766	+ 5.2
1098	1132	909	—19.7	Omaha	4695	4493	4790	+ 6.6
885	933	817	—12.4	Philadelphia	3539	3333	3578	+ 7.3
971	1099	937	—14.7	Pittsburgh	4042	3990	4069	+ 1.9
1184	1211	1178	— 2.7	Portland, Me.	5082	5236	5508	+ 5.1
622	583	527	— 9.6	Portland, Ore.	3073	2975	2943	— 1.0
1032	1030	942	— 8.5	Providence	4292	4017	4261	+ 6.0
865	869	701	—19.3	St. Louis	3593	3315	3509	+ 5.8
868	1062	878	—17.3	Salt Lake City	4176	4612	4142	—10.1
334	327	286	—12.5	San Francisco	1727	1547	1650	+ 6.6
1469	1407	1365	— 2.9	Sault Ste. Marie	6357	6063	6450	+ 6.3
644	589	553	— 6.1	Seattle	3221	2909	3068	+ 5.1
1090	1166	1023	—12.2	Toledo	4553	4246	4727	+11.3
842	861	732	—14.9	Washington	3496	3103	3279	+ 5.6

*Compared with last year, not with normal

THE TORIDHEET LIBERTY LINE



QUICK SHIPMENT FROM STOCK

We can make immediate shipments from stock of the following equipment.

Model B Wall-Flame Burners
Model C Wall-Flame Burners
Model S Pressure Burners
Model G Pressure Burners
Series OEO Air Conditioning Furnaces
Model 140 Water Heaters

Also, prompt shipment can be made from warehouse stocks of oil-burner boilers.

You owe it to yourself and to your community to replace worn-out equipment with Toridheet—because Toridheet was created to *cut* oil consumption.

This is the time to tie up with Toridheet. Write today for complete information.

CLEVELAND STEEL PRODUCTS CORP.
TORIDHEET DIVISION CLEVELAND, OHIO

Oil Burners ★ Air Conditioning Units ★ Oil-Burner Boilers
Coal and Gas Furnaces ★ Water Heaters

IF IT CAN BE REBUILT . . . SID HARVEY'S CAN DO IT!

★

If it can't be fixed the usual way, we fix it the UN-USUAL way. Eleven years of experience—plus—a corps of experts—plus—the largest and best equipped plant devoted exclusively to rebuilding oil burner pumps, valves, controls and motors, will solve your maintenance problem on "All Makes" service.

Send us your troubles—All work carries a full year guarantee. Price list and service "package" catalogue sent on request.

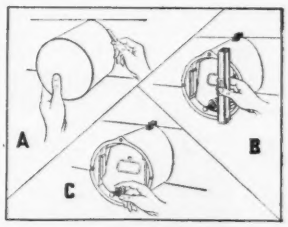
★

SID HARVEY, INC.
VALLEY STREAM, N. Y.

FREE we will supply you with an attractive envelope-stuffer, with space for your name and address to help you sell SUMMER OVERHAULING—no obligation of course, but the supply is limited. Send for yours today.

LAST YEAR thousands bought Field Draft Controls to save money — 5% to 25% of their fuel bill. NOW — under severe fuel rationing — your prospects will respond gratefully to a NEW sales appeal. HERE are magic words: "A Field Control keeps you WARMER on LESS fuel!" No one must waste fuel; therefore everyone is a prospect. And Field provides complete residential and commercial coverage. There's profit in every easy sale. Domestic installations often take under 30 minutes.

INSTALLATION'S SIMPLE AS A B C



A Hold collar snugly against stove pipe in correct position and mark outline on pipe. Snip hole in pipe ½" smaller than mark; snip slits ½" deep around hole.

B Strap collar to pipe; bend ½" slits into collar. Fasten control into collar and true control up and down and sideways by checking with carpenters spirit level for accuracy.

C Factory balanced, control requires only a simple hand adjustment for the particular installation. Set for minimum draft consistent with combustion and heat demands as required.

FIELD CONTROL DIVISION
MENDOTA, ILLINOIS

fuel oil & oil heat

Reader's Problems

Q. Regarding our heating business being essential, is this a lot of idle talk by manufacturers and publishers, or is there any question about this?

War Manpower Commission locally here doesn't list our industry as essential. I would appreciate a word from you regarding this. If it is not essential, it is about time that something be done to put it in a classification where it belongs.

The heating men out in the field are truly in a position to know the conditions of the heating plants which are operating today. They can see the damage in allowing these units to operate when they are unsafe. Lives will be lost, to say nothing of the damage done to the house in the way of ruining decorations and even setting fire to belongings.

Of course, we are to save fuel for defense and I honestly believe that if the condition were presented to the proper authorities, the industry would be reclassified. I can not imagine why the local board did not list the industry as essential if they are considered as such. Who would you consider the proper authority for the dealer to write regarding this? Of course, if it is only a matter of getting the local board here straightened out, there would be no object in writing to anyone.

D.M.S.

A. Local draft boards are autonomous. They are not bound to follow recommendations of the War Manpower Commission, though they try, in most cases, to be guided by the bulletins and recommendations that are issued from time to time setting forth the manpower needs of the nation.

Such a bulletin, No. 42 dated December 22, 1942, was issued recommending the deferment of heating men among 34 classifications. Most boards tried to follow this recommendation where possible, but many boards were not able to grant these recommended deferments and still fill their quotas.

A revised list of activities essential to the war was issued by the War Manpower Commission late in March. Included in the list are men engaged in "manufacture of products and maintenance of facilities and services necessary for civilian health, safety, morale and security." But like the other recommendations, local boards are not bound to defer men in these classifications. They only use the list in considering appeals in relation to the local supply of men to perform the necessary job or service.

With warmer weather due in the next few months, local boards are reported to be giving little consideration to oilburner and heating maintenance men.

Under the present system of selective service there is no central authority that can grant complete occupational deferment to heating men. Each case must be taken up individually with the local draft board, though appeals may be filed from the local board ruling when they appear to be unreasonable.

KEEP YOUR EYE ON.....

HERCO
The Oil-Thrifty
OIL BURNER

NOW'S the time to watch oil burner performance . . . learn the trend of tomorrow's burner market. Herco's exclusive features are building good will today. Efficient operation, low fuel consumption, minimum servicing have an added importance to home owners . . . a special significance to dealers thinking in terms of future sales. "Herco" means satisfaction today . . . sales tomorrow.

Herco facilities are now devoted entirely to war production, but a limited number of burners are still available to qualified buyers.

All Herco Burners are listed as approved by Underwriters' Laboratories, Inc., for Commercial Standard CS75-39.

HERCO OIL BURNER CORP., LANCASTER, PA.

When to Fill... and How Much...

HERE IS THE ANSWER!

The Government ruling affecting Fuel Oil Consumption makes Rochester Gauges more in demand today than ever before. Here's Why:

1. Large, easy-to-read figures on "double-dial," an *exclusive* Rochester feature, permit quick accurate reading from *outside* or *in* the cellar!
2. Magnetic, leak-proof principle assures accurate, dependable service—trouble-free operation!

Available for *immediate* delivery by your Rochester Jobber. Write today for complete information.

ROCHESTER MFG. CO., INC., 7 Rockwood St., Rochester, N. Y.

Rochester OIL BURNER TANK GAUGES

Q. We would appreciate information as to any set of procedure in closing down the operation of a plant using No. 6 oil.

We serve a number of plants that are converting to coal and plan to reconvert when conditions warrant. Would it be advisable to let the storage tank run low on No. 6 fueloil, and burn No. 5 oil prior to the conversion in order to eliminate excessive sludge, and to have a freer suction line from the tank when used again?

W.M.B.

A. If possible to use a lighter oil or a sludge-solvent just before converting plant, that will help in removing the sludge. It is essential to get as much of this residue out of the tank as possible before it goes out of use. Condensation on the cool walls of an empty tank will cause water to accumulate in the bottom. This water, in contact with any sulphur in the sludge, may cause serious damage to the tank.

On larger tanks with manholes, it would be possible to get inside to scrape out the residue, and paint the metal with asphalt paint to protect it against water. Smaller tanks should be drained as well as possible and an attempt made to wash the sides and bottom with kerosene or light oil.

◈

Q. Your editorial on post-war planning in the February issue is in line with our thinking, but we have a new problem.

We are considering an expansion of our oil department to the extent of adding tankage to handle approximately a million more gallons a year. To do this will take and investment of ten to twenty thousand dollars.

In normal times we would not hesitate, but our stoker competitors are putting forth rumors of no oil for heating, and a limited amount of oil in the ground. Is there anything to substantiate these statements?

L.V.S.

A. The answer to the rumors of a permanent oil shortage in the post-war period is in the article, "Oil Fuel in 1960?" starting on page 15 of the March issue. A limited number of reprints of this four-page article are available at ten cents each.

Q. We have more than twenty motors of various electrical characteristics other than 60-cycle, A.C. We would like to circularize any localities where these motors could be used. Can you tell me where these areas are?

H.W.

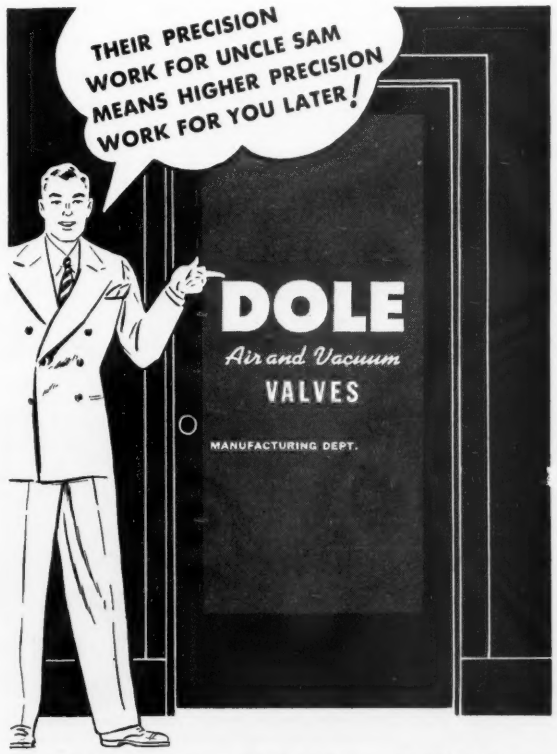
A. Edison Electric Institute reports that 25- and 40-cycle current now is used almost entirely by industrial plants and railroads in this country.

Some 25-cycle alternating current is used in Gary, Ind.; Springfield, Ohio; St. Louis; Niagara Falls; Buffalo; Baltimore; Washington; Toledo; Rochester and Syracuse, N. Y.

The 40-cycle current is principally used only at Rumford Falls, Me.; Palmer Falls, N. Y.; and Plattsburgh, N. Y.

◈

W. L. Mellon, chairman of the board of Gulf Oil Corporation, was one of three men recently honored with a Service Award emblem for the completion of 40 years of service with the company. Others were *Herman Taylor,* Ft. Worth, and *C. M. Hilliard,* Jacksonville, Fla.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The Wayne
OIL BURNER PLANT
is 100% in war production building precision parts and sub-assemblies for aircraft.

But WAYNE DEALERS HAVE THIS ASSURANCE

Wayne burners and parts for all Wayne units are available promptly from our inventory.

Wayne Dealer Victory Conservation Books, imprinted with dealer name are FREE to all dealers.

And FOR "TOMORROW"

Wayne Development Engineers will be ready with a completely new system of home-heating—tested—proved and vastly more efficient than anything you have ever seen.

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WAYNE OIL BURNER COMPANY
FORT WAYNE - INDIANA - U.S.A.

Let The GENERAL Lead Your Attack!

Stop the "Filth Column" which fouls nozzles and pumps and causes unnecessary service and trouble in wartime. The GENERAL effectively filters all dirt, sticky gums and waxes in the fuel line. ATTRACTIVE DISCOUNTS to the trade.

. . . . Two Models . . . .

2A-300 for Power Oil Burners *1A-50 for Space Heaters and Water Heaters*

Excellent design—Fine workmanship. A good record of service to the Field, dependable.

General Filters, Inc., Detroit, Mich., 8699 W. Chicago Blvd.

GENERAL FUEL OIL FILTER

Write for Literature

Listed: Re-Examination Service, Underwriters Laboratories

Model 2A-300

3/10c December Price Rise Was for Tank Wagons

THE INCREASE OF 0.3 cents per gallon in maximum tank wagon kerosene and fuel-oil prices authorized last December to cover additional costs of wholesale and retail distribution in the fueloil rationed area does not apply to any prior phase of the distribution process, the Office of Price Administration announced March 29.

The tank wagon price increase was contained in Amendment 53 to Revised Schedule No. 88—Petroleum and Petroleum Products.

Bulk plants, refineries and terminals do not participate in this price increase and may not add any part of the 0.3 of a cent to their established maximum prices to tank wagon dealers, OPA stated.

The increase does apply, however, to all tank wagon prices of fueloils in the rationed area whether stated in terms of cents per gallon or calculated from any pricing formula in the price schedule subject to the terms of that amendment.

Certain retail establishments whose supplies of kerosene, range oil and No. 1 fueloil are delivered to them by tank wagon were permitted to pass on to the consumer the added 0.3 of a cent per gallon charged the retailer by the tank wagon dealer. This authorization was contained in Amendment 15 to Maximum Price Regulation No. 137—Petroleum Products Sold at Retail—which also applies to all prices of kerosene, No. 1 fuel-oil and range oil established by that regulation whether stated in cents per gallon or determined by pricing formula.

New England Oil Men to Hear Gov't Bigwigs

AT THE TWENTIETH ANNUAL convention and war conference of the Independent Oil Men's Association of New England, to be held at Boston's Hotel Copley Plaza, April 21 and 22, six top-flight Washington officials will be the principal speakers.

Explaining the Government's position on problems affecting oil men will be Robert Collacott, price chief on refined products for OPA, Joel Dean, Director of the Fuel Rationing Div., OPA, Dr. John W. Frey, special assistant coordinator, PAW, Major Keller, ODT, Congressman Lea of California and J. Howard Marshall, chief of the legal division, PAW. An additional speaker on current war activities will be from United Press.

The first meeting is to be at 2 P. M., Tuesday, the 20th.

A.S.M.E. Conducts Conversion Meeting

THE AMERICAN SOCIETY of Mechanical Engineers sponsored a New York meeting March 22 to discuss problems of converting large boilers from fueloil to coal.

H. B. Van Cleve, assistant director of marketing for District 1 of P.A.W., outlined the relationship of the various interested governmental agencies. R. M. Hardgrove of Babcock & Wilcox and Otto de Lorenzi of Combustion Engineering presented examples of solved conversion problems in the field of power boilers using a minimum of 60 lbs. an hour.

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WAR ON FUEL OIL WASTE

Simply spray E-Z, and the soot in fire chamber and flues vanishes instantly. Increases efficiency of oil. One trial will convince you. "EASY" TO USE . . . ECONOMICAL TOO!

Makes satisfied customers.
DISTRIBUTORS: *Write for fine proposition.*

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Enclosed find check ( ) money order ( ). Send the following prepaid:

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Every specialty for Forced Hot Water House Heating Systems and Service Water Heating. Send for catalog and price sheet.

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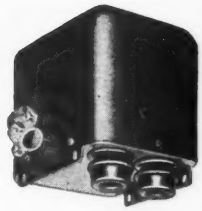
MORTON GROVE, ILL.

DONGAN TRANSFORMERS

Unfailing Ignition for Oil Burners

Ignition is at its best when an oil burner is equipped with a Dongan Transformer -- the transformer with many unusual construction features. Insulated under high vacuum. Protected against injury from electrical surges. Laminations heat-treated to remove internal stresses.



Voltages of 5000 to 15,000. A variety of sizes and mountings. Special types built to customer's specifications.

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"The Dongan Line Since 1909"

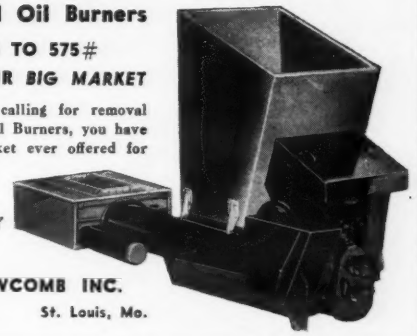
WRITE FOR LITERATURE

SELL STOKERS — TO REPLACE Commercial Oil Burners

SIZES 65 TO 575#

HERE IS YOUR *BIG MARKET*

With the Govt. calling for removal of Commercial Oil Burners, you have the greatest market ever offered for Stokers.



WRITE TODAY

SCOTT-NEWCOMB INC.
1923 Pine St. St. Louis, Mo.

Headaches Preferred

(*Continued from page 18*)

more inside work to do, but a little figuring releavel that total additional internal costs were not one-third as much as external costs would have increased if drivers had spent 15 minutes at the door on the average.

Many Baltimore fueloil users tried to get Sherwood to take them on as customers. The general story was that neighbors served by Sherwood were having less troubles than they were, so they'd like to join the family.

Satisfied that it would take every ounce of energy to care for regular customers, the company accepted no new ones. But the company policy was opposed to offending these other people with a curt refusal, so they decided to make one man a "No" specialist and he should give the disappointed petitioners a full and tactful explanation. All phone calls, letters and personal calls on the subject have been handled by this man, and he is still at it, full time. He has had to refuse more than 3,000 such requests.

Every office this year has a prize rationing experience to tell. Out of several at Sherwood's, this is the best one:

A customer of broken-English variety lived near the city line on a street that had the same name both in the city and out. He got two full rations, one from the city board and one from the county, turned both in to Sherwood. Called to his attention, Carson phoned the man and explained that it wasn't cricket. As such people often do, the man played dumb, couldn't understand the problem. When Carson refused to accept dumbness, the man asked, "What do you care; you've got the oil and I've got the money." Then he hung up the phone.

Carson wrote the local OPA headquarters asking for instructions. Five days later he had a reply asking that both rations be sent in to them.

Carson went to the folder to get the coupons, and to his amazement all the coupons had been torn off, nothing was left but the center issuing portions. Upon inquiry, he found the culprit. One of the employees, a matronly sort, mother and housewife, had come across the folder in her processing work. Inside it was the carbon copy of the letter Carson had written to OPA. Mama boiled over. She took the folder along to lunch with some of the girls and they talked it over, decided the only way to treat such a skunk was to give him no oil. "We decided to show that so-and-so that he's in America now."

"But," asked Carson, "What did you do with the coupons?"

"Why, we just tossed them into the company's pile."

Carson and OPA talked it over, decided that the girls had done probably the right thing, but cautioned that in future it might be safer all around to leave retribution to experts.

◈

The Mercoid Corp., Chicago, has published Catalog No. 600, a 64-page book illustrating and explaining applications of the complete line of Mercoid controls.

Energy Control Co., Philadelphia and New York, is the new Eastern sales outlet for the Marsh Tritrol Co., Chicago, handling the company's "outside" heat control products.

Headquarters For Service Instruments That Simplify Combustion Tests

BACHARACH
Industrial Instrument Co.
7000 BENNETT STREET
PITTSBURGH, PA.

PREFERRED DRAFT-A-JUSTOR

THE ORIGINAL. STILL THE BEST.
HUNDREDS OF THOUSANDS IN USE.

Holds the draft constant in the fire box.

Scientific draft control for the smallest to the largest jobs.

Stove, domestic, and commercial sizes from 4" to 24" in diameter.

Industrial sizes from 24" x 24" to 5' x 12'.

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WANTED: Dies for 6" burner bowl one wick type depth of oil grove 1-3/16 inches. Perforating dies for burner shields and cover plate. Box 457, FUELOIL & OIL HEAT, 232 Madison Avenue, New York, N. Y.

TANKS WANTED: Need four used storage tanks capacity about 20,000 gal. each. Maximum diameter 11 ft. Richardson Engineering Company, 301 Burnet Street, New Brunswick, N. J.

SELL UP TO ONE THOUSAND 275 GALLON BASEMENT FUEL OIL TANKS, 12 GAUGE. C. HOFFBERGER COMPANY, MONUMENT & FORREST STS., BALTIMORE, MARYLAND.

WRITE US for descriptive literature of our Oil Burner Electrodes and Accessories. Specialty Sales & Service Corp., 138 Holden Street, Minneapolis, Minn.

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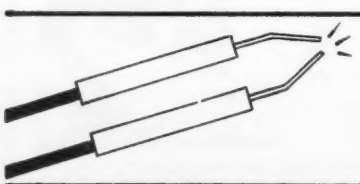

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Standing Guard

OVER THE FUTURE OF YOUR BUSINESS

Standing guard over America's future is more than a job for our capable armed forces — it concerns American business, too. In your case, that means the business of supplying and servicing heating equipment. It's important to you now, and even more important to our country's progress after the war is won.

Guarding the future of your business is no easy job — but it's made easier when the equipment you sell is Perfex controlled. *Two* responsible manufacturers stand back of Perfex-controlled equipment. Perfex engineers work with those of the equipment manufacturer to fit the controls to the job.

Even though you may seldom meet the Perfex Twins face to face, remember they're working for you and your future. When that future arrives, make sure they are still with you, because wherever you find the Twins, there you will find controls which have kept pace with war-accelerated developments in the heating industry.

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M-H Electrons are coming to control the heating of homes — to dispense carefree indoor comfort, regulate heating effortlessly, to air condition rooms. Now M-H Electrons are at war, performing miracles in planes, tanks and ships for our armed forces. These same miracles, or modifications of them, will be available to home owners everywhere after peace comes. Minneapolis-Honeywell Regulator Company, 2721 Fourth Ave. S., Minneapolis, Minn. In Canada: Toronto, Ontario. In Europe: London, England; Stockholm, Sweden.

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